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OCEANOGRAPHIC OBSERVATIONS IN THE GEORGIA BIGHT: DATA REPORT FOR R. V. EASTWARD CRUISES E-13-73 (4-11 SEPTEMBER) AND E-19-73 (8-9 DECEMBER 1973)

Larry P. Atkinson

Georgia Marine Science Center

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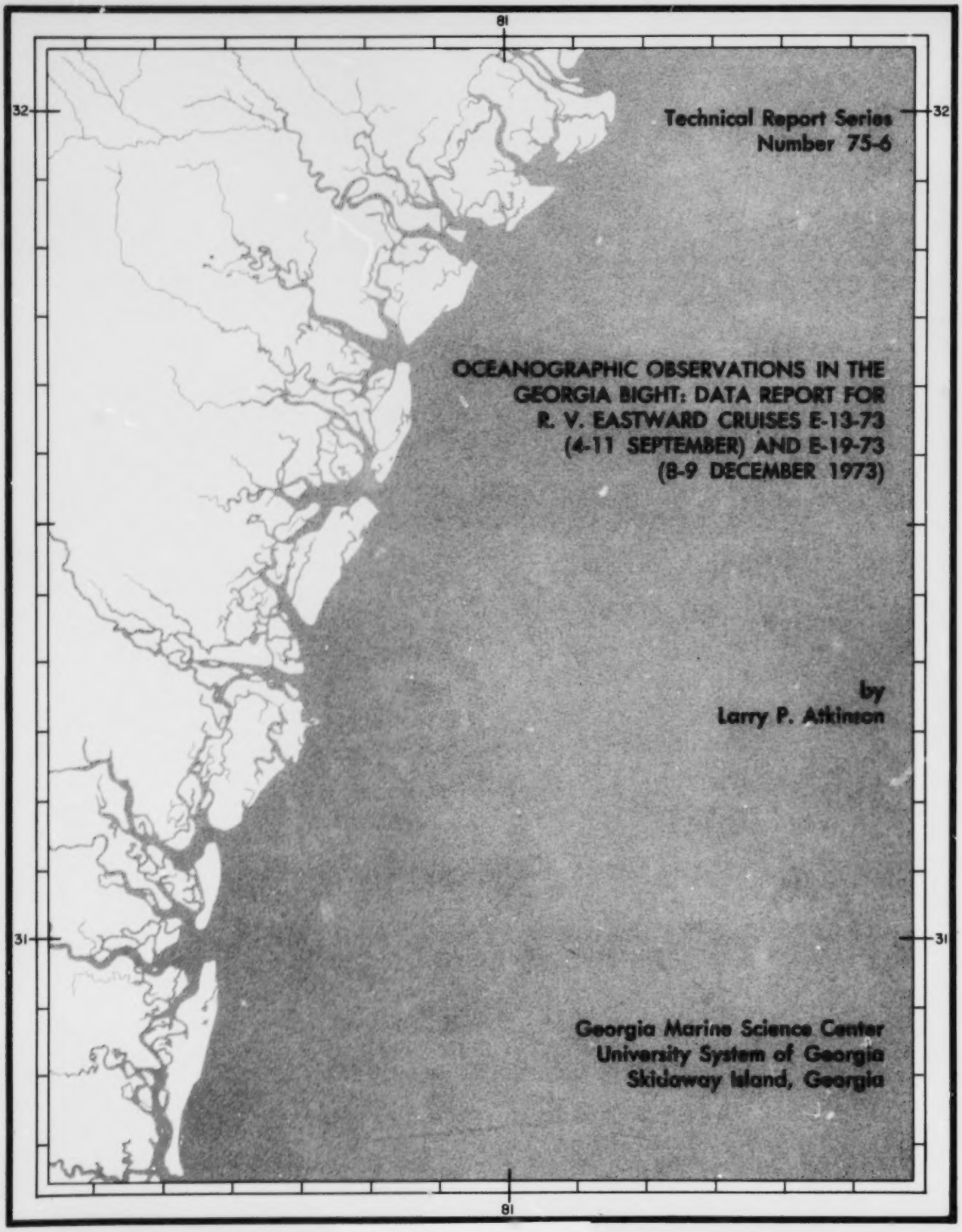

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by
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Georgia Marine Science Center
University System of Georgia
Skidaway Island, Georgia

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The Technical Report Series of the Georgia Marine Science Center is issued by the Georgia Sea Grant Program and the Marine Extension Service of the University of Georgia on Skidaway Island (P. O. Box 13687, Savannah, Georgia 31406). It was established to provide dissemination of technical information and progress reports resulting from marine studies and investigations mainly by staff and faculty of the University System of Georgia. In addition, it is intended for the presentation of techniques and methods, reduced data and general information of interest to industry, local, regional, and state governments and the public. Information contained in these reports is in the public domain. If this prepublication copy is cited, it should be cited as an unpublished manuscript.

ABSTRACT

Data from Cruise E-13-73 (4-11 September 1973) and Cruise E-19-73 (8-9 December 1973) of the R.V. EASTWARD in the Georgia Bight are presented. Included are the NODC station printouts with the following data: depth, temperature, salinity, oxygen, phosphate, nitrate, silicate, dissolved organic carbon, weather, ships' position, station time and depth. Biological data include: chlorophyll, carbon-14 primary productivity, particulate carbon and nitrogen, principal zooplankton species and main benthic macroinvertebrates. Sediment size analysis and mercury analysis are also included.

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The following scientists are responsible for the various subprojects:

Hydrography	Dr. Larry Atkinson
Phytoplankton	Dr. William Dunstan
Zooplankton	Dr. Lowell Sick
Trace Metals	Dr. Herbert Windom
Benthos	Dr. John Kraeuter
Dissolved Organic Carbon	Dr. Wayne Gardner
Particulate Organic Carbon & Particulate Nitrogen	Dr. Ev Haines
Zooplankton Respiration	Dr. John Hall

Cruise participants are as follows:

E-13-73

Larry Atkinson	Dan Perlmutter
Wayne Gardner	Helen Beaty
Lowell Sick	Gary Baptist
John Hall	Frank Taylor
Evelyn Haines	Elizabeth Waiters
John Kraeuter	Bill Gunter
Bill Dunstan	Roy Smithberg

E-19-73

Larry Atkinson	Helen Beaty
Wayne Gardner	Frank Taylor
Lowell Sick	Bill Gunter
John Hall	Ron Wallace
John Kraeuter	Bruce Drennen
Greg McIntire	Bruce Haines
Evelyn Haines	

In addition, the following people participated in the data processing: Ann Atkinson, Joe Natoli and Ralph Smith. Paula Vopelak is thanked for typing the manuscript.

The National Oceanographic Data Center provided data processing, listings and magnetic tape outputs.

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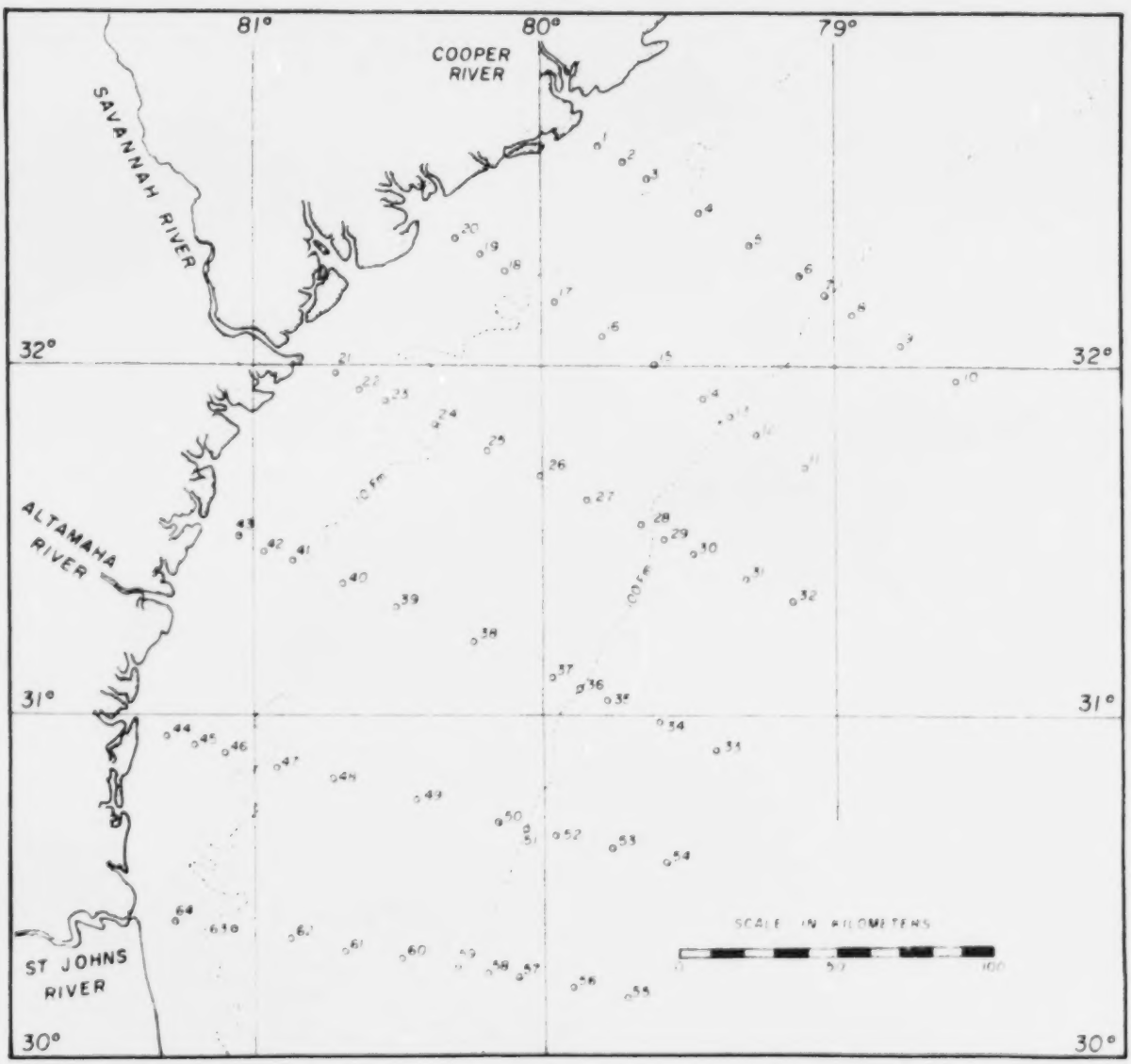
INTRODUCTION

As part of a study of the biology, chemistry, physics and geology of the Georgia Bight and its waters, a survey of the area was made in September and December 1973, on board the R. V. EASTWARD (Cruises E-13-73 and E-19-73). The stations are shown in Figure 1. All data available from Cruises E-13-73 and E-19-73 are shown in Appendices A and B, respectively.



DISPOSITION OF DATA

The hydrographic data (salinity, temperature, nitrate, phosphate, silicate and oxygen) are on file with the National Oceanographic Data Center in Washington, D. C. and at the Skidaway Institute of Oceanography. The biological, geological and chemical data are available from Skidaway Institute of Oceanography.

METHODS

Hydrographic casts were made with teflon-lined Nansen bottles fitted with reversing thermometers. Sampling depths were determined using normal wire out, wire angle and thermometric depth techniques. A bathythermograph cast was made prior to each station to determine bottle spacing. Drift bottles were released at selected stations. They were made from green wine bottles weighted with sand and corked. They each contained a Day-Glo card requesting return of the card. Samples for chlorophyll, carbon-^{14} primary productivitv. particulate organic carbon and particulate nitrogen were obtained by a separate cast using Niskin bottles. Reported weather observations were taken from the bridge log and represent the deck officer's observations. The other analytical methods were as follows:

Table 1. Analytical Methods

Analysis	Methods
Salinity	Portable High Precision Laboratory Salinometer
Oxygen	Standard Winkler Titration (Strickland and Parsons 1965)
Phosphate	Reduced phosphomolybdate (*ibid*)
Silica	Reduced silicomolybdate (*ibid*)
Nitrate	Hydrazine reduction (*ibid*, 1960)
Dissolved Organic Carbon	Persulfate oxidation/IR analysis (Menzel & Vaccaro, 1964)
Particulate Organic Carbon	High temperature combustion (*ibid*)
Particulate Nitrogen	Micro-Dumas/Coleman analyzer
Chlorophyll	*in vitro* fluorimetric (Yentsch & Menzel, 1963)
Primary Productivity	Carbon-^{14} assimilation (Steeman Nielson, 1952)

Methods for the benthic samples are as follows:

Sediments: Sediment samples were taken with a box dredge, and a small subsample was removed, placed in a plastic bag and returned to the laboratory for grain size analysis. All sieve fractions were dried and kept separate after the standard analysis. These fractions were then acidified and reweighed to remove carbonates. Grain size of the samples with large amounts of silts and clays was determined by pipette analysis.

The organic sample was placed in a plastic container and immediately frozen. These samples remained frozen until they were cut into cubes in the laboratory. Four cubes were selected from each sample, dried at 60°C, weighed, ashed at 500°C, weighed and ash-free dry weight was determined.

Benthos: Benthic invertebrates were sampled with a small biological trawl (4mm mesh) on E-13-73 and a modified anchor dredge fitted with a 2m tail encased in stainless 4mm wire on E-19-73. All trawls were for two minutes, and samples were preserved in ethanol. When large amounts of sediment were brought up, the sample was divided into one-third or one-fourth size subsamples and an appropriate amount saved. The remaining subsamples were sorted for larger organisms such as clams, starfish, sand dollars and crabs. These specimens were counted, placed in the sample and their numbers were recorded. All sorting was done in the laboratory. Supplemental data and specimens were obtained from otter trawls.

Mercury: Water samples for mercury analysis were collected from the upper two meters by pumping with a peristaltic pump using polypropylene tubing attached to a 10 meter non-metallic boom. This allowed samples to be collected uncontaminated by the ship. Samples collected in PVC Niskin bottles using the ship's hydro winches were found to be contaminated giving spurious high values. Water samples were collected in Pyrex BOD bottles and acidified with concentrated sulfuric acid to a pH of less than 1.

Prior to analysis samples were further oxidized with nitric acid, potassium permanganate and potassium disulfate. This was followed by reduction of the mercury in the sample to its zero valance state with stannous sulfate. The mercury vapor was then aerated using a peristaltic pump into the mercury analyzer system (Laboratory Data Control). Sample absorption was compared to standards prepared in a similar way. Based on replicate seawater analyses, the analytical precision for mercury is $\pm$10% at a concentration of 35 ng/1.

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APPENDICES

APPENDIX A

Cruise E-13-73 Data

RUNOFF AND WEATHER

The observed weather at each station is listed with the hydrographic data. Prior to the cruise the southeast coast was under the influence of a large stationary high centered over the Carolinas. Winds were generally northerly and light. During the cruise the high weakened and moved southeasterly. Winds remained northerly and light.

River flows from the principal rivers (Altamaha, Savannah and Cooper) are summarized in the following table:

Table 1. Runoff data for principal rivers. Average daily flow rates (m^3/day) are shown.

Date	Altamaha/Savannah/Cooper m^3/sec			Total km^3/day
August 22	246	279	281	.069
23	232	270	281	.067
24	228	268	345	.073
25	229	271	337	.072
26	217	272	532	.088
27	196	268	203	.057
28	179	259	357	.069
29	167	252	385	.069
30	162	246	365	.067
31	156	245	379	.067
Sept. 1	159	251	379	.068
2	167	253	419	.072
3	166	248	365	.067
4	161	239	334	.063
5	164	233	279	.058
6	159	227	314	.060
7	145	228	422	.067
8	134	234	300	.058
9	130	236	408	.067
10	130	238	348	.062
11	128	238	212	.050
				total 1.39 km^3

HYDROGRAPHIC DATA

The following data are directly from the NODC listing. The headings indicate the following:

1. NODC: NODC identification code
2. SH: ship (EZ=EASTWARD)
3. LAT: Latitude of station
4. LONG: Longitude of station
5. MSQ: Marsden Square
6. ID: Drift indicator (29=no drift)
7. MO: month (GMT)
8. DY: day (GMT)
9. HR: hour (GMT) to tenths (xx.x)
10. YEAR: year (GMT)
11. CRNO: cruise number
12. STANO: station number
13. DEPTH BOT: depth to bottom (meters) (xxxx)
14. DNP. maximum depth of samples in hundreds of meters
15. WAVE DIR: wave direction tens of degrees
16. WAVE HT: wave height in sea state units
17. WAVE P: wave period, not reported
18. WAVE S: sea amount, not reported
19. WC: weather code (WMO Code 4501)
20. CLOUD TY: cloud type (WMO Code 0500)
21. CLOUD AMT: cloud amount (WMO Code 2700)
22. NODC STANO: NODC station number
23. CASTMSG: cast messenger time (GMT) in tenths (xx.x)
24. CTYPE: OBS=observed data, STD=interpolated standard depth
25. DEPTH: depth in meters (xxxx). "T" indicates thermometric depth data
26. TEMP: temperature in ^{o}C to hundredths (xx.xx)
27. SAL: salinity in parts per thousand (xx.xx)
28. SIGMAT: sigma-t (density) to hundredths (xx.xx)
29. SPVOLAN: specific volume anomaly x 107
30. SYNDPH: $\Sigma\Delta D$, dynamic meters $x10^{3}$
31. SVF: sound velocity
32. OXY: oxygen (ml/L) (x.xx)
33. PO4: phosphate (μg-at/L) (x.xx)
34. TOTP: total phosphate (not reported)
35. NO2: nitrite (not given)
36. NO3: nitrate (μg-at/L) (xx.x)
37. SIO4: silicate (μg-at/L) (xx.x)
38. DOC: dissolved organic carbon (mgC/L) (x.xx)

Refer to NODC manual M-2 ("Processing physical and chemical data from oceanographic stations") for further information and explanation of the codes.

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSD	ID	MO	DY	HR	YEAR	ESTIMATED CRAD	DEPTH STAND	DET	DYP	WAVE DIR DE	HT	P	S	WC	CLOUD TY	AMT	NODC STAND

		WATER CLR	TP	WIND DR	S/S	BAR	AIR TEMP DRY	WET V	CN OBS

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
312229	EZ	32377N	079474W	116	29	09	05	115	1973	013	001		0011	1	14	1			X1	3	5			0001
								14	E02	159	267		01										
		STD	0000	2726	3465	2239			0054552	0000	15396	497										
	115		0000	2726	3465	2239					15396	497	013							035	239	118

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NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNT	STANC	DEPTH SOT	DNR	HAVE OBS DR	HT	P	S	CLOUD WC	TY	AMT	NODC STANO
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	SEA			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	P04	TOTP	N02	N03	SI04	DOC					
312229	EF		32350N	079423W	116	29	09	05	125	1973	013	2		0012	1	14	1		X1	8	E	0002
									14	502	159	257		01								
			STD	0000	2714	3498	2268	0351815	0000	15397	501											
	125		785	0000	2714	3498	2268			15397	501	012				020						128

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NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNR	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	E/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP		SAL		SIGMAT		SPVOLAN		DYNDPH		SVF		OXY		PO4		TOT?	NO2	NO3	SIO4	DOC
312229	EZ		32325N	079375W	116	29	09	05	138	1973	013	3			0020	1	14	1			X1	3	5		0003
									14	E02	165		272				02								
			STD	0000	2732		3504		2267		0051934		0050		15402		500								
	138		OBS	0000	2732		3504		2267						15402		500		000				003	029	132
			STD	0010	2726		3505		2269		0051720		0052		15402		496								
	138		OBS	0010	2726		3505		2269						15402		496		000				003	021	108

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
31	2229	EZ	32272N	079278W	116	29	09	05	154	1973	013	4	0021	1	16	1			X1	8	3	0004

														16	E02	176	278			02		

	CASTMSG	CTYPE	DEPTH	WATER TEMP	WATER SAL	WATER SIGMAT	WIND DR	WIND S/S	BAR	AIR TEMP DRY	AIR TEMP WET	W OBS	SVE	OXY	PO4	TOT?	NO2	NO3	SI04	DOC
		STD	0000	2792	3525	2263	0052281	0000					15417	510						
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		STD	0010	2608	3540	2333	0045623	0049					15379	484						
		STD	0020	2424	3555	2401	0038218	0091					15340	458						
154		OBS	0020	2424	3555	2401							15340	458	018			000	001	142

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR GRNO	DEPTH STAND	RCT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	DR	WIND F/S	BAR	AIR TEMP DRY	WET V	AD OBS				
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312229	EZ	32217N	079178W	116	29	09	05	175	1973	013	5	0031	1	16	1		XI	R	3			0005
									16	502	173	283		04								
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			STD	0010	2849	3552	2265		0352177	0052	15434	508										
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NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	DEPTH STAND	BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
															WATER CLR	WIND TP	DR	S/S	BAR	AIR TEMP DRY	WET V	NO OBS
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									16	503	163	289		05								
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NODC STATION DATA

NODC CC	ID	CH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUD	DEPTH STAND	BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	DP	WIND F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
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			STD	0030	2510	3519	2423	0037179	0140	15369	496											
			STD	0050	2189	3640	2533	0026716	0204	15296	489											
	203		OBS	0050	2189	3640	2533			15296	489	005			017	021	152					
			STD	0075	2015	3630	2573	0023000	0266	15253	436											
	203		OBS	0075	2015	3630	2573			15253	436	030			029	020	134					
	203		OBS	0090	1946	3634	2594			15237	409	040			056	030	128					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNC	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE DIR	WAVE HT	WAVE P	WAVE S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANC
312229	EZ		32101N	0785?5W	116	28	09	05	228	1973	013	8		0190	1		16	3			X1	8 4

CASTMSG	CTYPE	DEPTH	WATER TEMP	WATER CLR	WATER TP	WIND DR	WIND S/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS	SVE	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
									20	16	F03	159	278		07					
	STD	0000	2804	3532	2264			0052153	0000				15420	502						
228	OBS	0000	2804	3532	2264								15420	502	005			000	004	112
	STD	0010	2833	3570	2283			0050381	0051				15432	496						
229	OBS	0010	2833	3570	2283								15432	496	000			000	007	148
228	OBS	T0019	2541	3595	2395								15372	527	004			000	000	138
	STD	0020	2526	3597	2401			0039175	0096				15369	526						
	STD	0030	2386	3612	2455			0034086	0123				15339	512						
228	OBS	T0048	2162	3632	2535								15288	487	007			003		118
	STD	0050	2138	3632	2542			0025915	0193				15282	483						
	STD	0075	1883	3636	2612			0019294	0249				15217	438						
229	OBS	T0097	1736	3639	2651								15179		048			005		138
	STD	0100	1731	3637	2651			0015654	0293				15178	403						
	STD	0125	1692	3626	2652			0015659	0332				15169	378						
228	OBS	T0145	1664	3620	2654								15163	366	061			105	054	106
	STD	0150	1658	3619	2654			0015491	0371				15162	364						
229	OBS	T0174	1630	3616	2659								15157	360	064			100		108

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSG ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
312229	EZ	32081N	078535W		116	28	09	06	010	1973	013	9		0280	1	16	3		X1	8	2

	WATER CLR	WIND TP	WIND DR	WIND S/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS
						16	F03	169	267

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
	STD	0000	2765	3523	2270	0051588	0000	15411	504						
010	OBS	0000	2765	3523	2270			15411	504	001			001	007	168
	STD	0010	2813	3547	2273	0051401	0051	15426	500						
010	OBS	0010	2813	3547	2273			15426	500	005			000		168
	STD	0020	2576	3606	2393	0039967	0097	15381	516						
010	OBS	0020	2576	3606	2393			15381	516	005			000	008	138
	STD	0030	2379	3617	2461	0033514	0134	15337	497						
010	OBS	T0049	2089	3632	2555			15269	458	011			024		108
	STD	0050	2084	3632	2556	0024516	0192	15267	454						
	STD	0075	1953	3633	2592	0021210	0249	15236	373						
010	OBS	T0097	1848	3634	2619			15211	333	057			098	043	108
	STD	0100	1834	3633	2622	0015399	0299	15207	335						
	STD	0125	1728	3625	2642	0016578	0342	15179	345						
010	OBS	T0146	1648	3617	2655			15158	346	071			126	048	144
	STD	0150	1636	3615	2657	0015260	0382	15155	343						
010	OBS	T0192	1504	3597	2673			15119	325	081			126	042	160
	STD	0200	1483	3594	2675	0013659	0454	15113	328						
	STD	0250	1322	3572	2692	0012083	0519	15066	339						
010	OBS	T0284	1184	3556	2707			15023	339	125			198	114	190
	STD	0300	1111	3548	2715	0010000	0574	14999	338						
010	OBS	T0357	0807	3517	2742			14893	323	167			234	167	194

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSG ID	MB	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STANC
					WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS								
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312229	EZ	32048N	078458W	116	28	09	06	039	1973	013	IO		0418	1	16	3			X1	8	2		0010
							20	16	F03	176	267			09									
		STD	0000	2798	3540	2272			0051396	0000	15420	520									
039		OBS	0000	2798	3540	2272					15420	520	003				000	006	210		
039		OBS	T0008	2801	3541	2272					15422	501	003				002	008	200		
		STD	0010	2741	3555	2302			0048594	0050	15411	553									
039		OBS	T0014	2625	3579	2357					15388	631	007				001	012	130		
		STD	0020	2451	3595	2423			0037110	0093	15350	594									
		STD	0030	2198	3614	2511			0029725	0126	15292	515									
039		OBS	T0035	2089	3621	2546					15265	496	015				022	026	134		
		STD	0050	1850	3616	2605			0019827	0174	15201	426									
039		OBS	T0069	1664	3611	2647					15143	375	071				120	055	110		
		STD	0075	1662	3610	2647			0015968	0219	15150	370									
		STD	0100	1655	3609	2646			0016076	0259	15151	356									
039		OBS	T0102	1654	3613P	26513						355									
		STD	0125	1599	3605	2657			0015126	0299	15139	354								122	
		STD	0150	1493	3602	2679			0013113	0333	15102	352									
039		OBS	T0150	1493	3602	2679					15109	352	092				145	060	134		
039		OBS	T0173	1353	3578	2691					15064	350	097				152	074	118		
		STD	0200	1213	3567	2711			0010203	0392	15020	347									
		STD	0250	1022	3548	2730			0009361	0438	14956	340									
		STD	0300	0921	3528	2732			0009251	0480	14928	331									
039		OBS	T0320	0906	3520	2728					14924	327	295				289	150	078		

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR GRID	DEPTH STAND	DEPTH BOT	NAVE OBS DNP	OBS HT	P	S	CLOUD WX	CLOUD TY	CLOUD AMT	NODC STAND
					WATER CLR	TP	WIND DR	E/S	BAR	AIR TEMP DRY	WET V	NO OBS								
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC				
312229	EZ	31442N	079060W	116	19	09	06	135	1973	013	II	0525	1	99	0		X2	5	8	0011
								26	99	501	169	261		10						
		STD	0000	2845	3507	2232	0055245	0000	15426	514										
135		OBS	0000	2845	3507	2232			15426	514	009			001	010	112				
135		OBS	T0009	2859	3586	2287			15439	552	012			000	011	100				
		STD	0010	2859	3586	2287	0050016	0053	15440	545										
135		OBS	T0016	2854	3590	2291			15440	509	005			000	011	100				
		STD	0020	2843	3595	2299	0048929	0102	15439	509										
		STD	0030	2810	3606	2318	0047167	0150	15435	510										
135		OBS	T0042	2764	3616	2341			15428	511	004			000	007	164				
		STD	0050	2732	3618	2353	0043945	0241	15422	509										
		STD	0075	2597	3623	2399	0033631	0346	15397	501										
135		OBS	T0084	2537	3624	2418			15385	498	003			000	010	144				
		STD	0100	2409	3625	2458	0034068	0438	15357	521										
		STD	0125	2180	3627	2526	0027709	0515	15304	557										
135		OBS	T0127	2160	3627	2531			15300	550	015			014	017	148				
		STD	0150	1911	3629	2600	0020695	0576	15236	390										
135		OBS	T0155	1860	3630	2613			15223	362	054			088	039	190				
		STD	0200	1469	3583	2670	0014114	0663	15107	340										
135		OBS	T0230	1258	3558	2694			15039	330	092			193	093	168				
		STD	0250	1138	3543	2706	0010703	0725	14999	327										
		STD	0300	0922	3517	2724	0008051	0774	14926	323										
135		OBS	T0315	0880	3512	2726			14913	322	157			219	169	129				
		STD	0400	0875	3511	2727	0008947	0864	14925	322										
135		OBS	T0413	0874	3511	2727			14926	322	151			237	158	174				

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR GRID	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAN
312229	EZ	31385N	079108W		116	19	09	06	176	1973	013	12	0280	1	99	0			X1		R 6	0012

CASTMSG	CTYPE	DEPTH	WATER TEMP	WIND CLR	WIND TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
			06	99	FCO			166	289			09								
	STD	0000	2808	3514	2249			0053576	0000				15413	514						
176	OBS	0000	2808	3514	2249								15419	514	002			000	007	194
	STD	0010	2750	3555	2299			0048867	0051				15413	500						
176	OBS	0010	2750	3555	2299								15413	500	010			002	009	208
176	OBS	T0019	2733	3566	2313								15412	514	004			000	009	154
	STD	0020	2716	3568	2320			0046922	0099				15408	516						
	STD	0030	2559	3587	2384			0040871	0143				15377	531						
176	OBS	T0049	2320	3612	2474								15325	537	001			000	011	240
	STD	0050	2300	3612	2481			0031719	0216				15321	531						
	STD	0075	2083	3616	2544			0025751	0287				15269	463						
176	OBS	T0096	1956	3620	2581								15239	416	032			053	032	204
	STD	0100	1955	3621	2582			0022233	0347				15240	404						
	STD	0125	1920	3628	2596			0020951	0401				15235	352						
176	OBS	T0144	1857	3633	2616								15221	342	054			100	039	158
	STD	0150	1812	3629	2624			0018379	0451				15208	363						
176	OBS	T0192	1560	3602	2664								15137	429	085			135	059	114
	STD	0200	1543	3601	2667			0014436	0533				15132	404						
176	OBS	T0240	1400	3582	2684								15091	325	099			164	076	138
	STD	0250	1350	3574	2688			0012474	0600				15076	317						
176	OBS	T0263	1240	3557	2697								15043	316	121			173	107	174

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DEPTH DNR	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STANO

			WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	W	NO OBS

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	DXY	PO4	TOTP	NO2	NO3	SIO4	DOC
312229	EZ	315114	079216W	116	19	09	06	197	1973	013	13	0105	1	99	0		X1	8	4			0013

99 E00 152 06

		STD	0000	2800						504						
	197	OBS	0000	2800						504	004			000	008	148
		STD	0010	2742	3555	2302	0048612		15411	517						
	197	OBS	0010	2742	3555	2302			15411	517	005			000	008	128
		STD	0020	2726	3565	2314	0047442		15410	510						
	197	OBS	0020	2726	3565	2314			15410	510	010			000	007	118
		STD	0030	2472	3597	2418	0037578		15357	507						
		STD	0050	2126	3634	2546	0025479		15279	485						
	197	OBS	0050	2126	3634	2546			15279	485	011			009	022	118
	197	OBS	0074	1996	3628	2577			15247	431	020			030	027	158
		STD	0075	1991	3628	2578	0022545		15246	429						
		STD	0100	1991	3626	2603	0020270		15222	397						
	197	OBS	0102	1984	3626	2604			15221	396	045			060	043	108

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUI	STAND	DEPTH BOT	DNP	NAVE OBS DP	HT	P	S	WC	CLOUD TY	AMT	NODC STAN
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOT2	NO2	NO3	SIO4	DOC
312229	FZ	31545N		079280W	116	19	09	06	218	1973	013	14		0065	1	14	1		X1	8	2	0014
											14	F02	156	278				07				
			STD	0000	2809	3531	2262	0052381	0000	15421												
	218		OBS	0000	2809	3531	2262			15421		005			000	007	130					
			STD	0010	2749	3545	2292	0049551	0051	15411												
	218		OBS	0010	2749	3545	2292			15411		002			000	002	164					
			STD	0020	2442	3620	2444	0035047	0093	15351												
	218		OBS	0020	2442	3620	2444			15351		004			000	000	122					
			STD	0030	2291	3622	2490	0030706	0126	15316												
	218		OBS	0030	2291	3622	2490			15316		005			000	003	144					
	218		OBS	0040	2206	3630	2521			15297		005			000	012	169					
			STD	0050	2169	3629	2530	0026977	0154	15299												
	218		OBS	0050	2169	3629	2530			15299		004			001	012						
	218		OBS	0060	2123	3629	2543			15279		010			005	011	154					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DAP	WAVE OBS DP	HT	P	S	CLOUD WC	TY	AMT	NODC STAND
312229	EZ	32000N	079280W	116	29	09	07	000	1973	013	15		0042	1	99	0			X1	8	5	0015

	CASTMSG	DTYPE	DEPTH	WATER CLR TEMP	WIND DR F/S	BAR	AIR TEMP DRY	AIR TEMP WET V	NO OBS	SVF	DXY	PO4	TOTP	NO2	NO3	SIO4	DOC
					99	000	159			05							
		STD	0000	2820	3521	2251	0053448	0000		15423	418						
	000	OBS	0000	2820	3521	2251				15423	418	005			000	003	164
		STD	0010	2783	3546	2282	0050535	0052		15419	500						
	000	OBS	0010	2783	3546	2282				15419	500	010			000	004	144
		STD	0020	2685	3591	2347	0044300	0099		15404	516						
	000	OBS	0020	2685							516	007			000	009	164
		STD	0030	2362	3616	2465	0033114	0139		15333	524						
	000	OBS	0030	2362	3616	2465				15333	524	010			000	004	168
	000	OBS	0040	2323	3620	2480				15326	514	010			000	003	204

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ	IC	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
										WATER CLR	TP	WIND DR	S/S	BAR	AIR TEMP DRY	WET	V	CBS			
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVP	OXY	PO4	TOT P	NO2	NO3	SI04	DOC					
312229	F7	32055N	079475W	116	29	09	07	017	1973	013	16		0027	1	14	0		X1	8	2	0016
							14	F02	169	267			04								
		STD	0000	2814	3563	2284	0050238	0000		15426	484										
017		OBS	0000	2814	3563	2284				15426	484	033			000	037	174				
		STD	0010	2795	3563	2291	0049688	0050		15423	487										
017		OBS	0010	2795	3563	2291				15423	487	002			003	038	190				
017		OBS	0017	2560	3558	2362				15372	493	007			000	004	164				
		STD	0020	2497	3562	2384	0040820	0035		15358	484										
017		OBS	0027	2436	3584	2419				15347	501	029			000	006	174				

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	S/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOT2	NO2	NO3	SIO4	DOC					
312229	EZ	32110N	079576W	116	29	03	07		1973	013	17		0020	1	14	1			X1	8	2			0017
									14	502	169	267			03									
			STD	0000	2773	3553	2290	0049682	0000	15416	496													
		020	OBS	0000	2773	3552	2290			15416	496	007			000	012	194							
			STD	0010	2744	3557	2303	0049530	0045	15412	501													
		020	OBS	0010	2744	3557	2303			15412	501	001			000	004								
		020	OBS	0019	2649	3564	2328			15393	508	012			000	015								

NODC STATION DATA

NODC CC ID	S4	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNR	WAVE OBS OR	HT	P	S	WC	CLOUD TY	AMT		NODC STAND
									WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS				
	CASTMSQ	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC				
312229	EZ	32160N	080072W	117	20	09	07	050	1973	013	18		0020	1	16	2		X1	8	2	0018
									16	F03	164	267		03							
		STD	0000	2775	3499	2249	0053621	0000	15412	434											
	050	OBS	0000	2775	3499	2249			15410	494	014				000	035					
		STD	0010	2765	3511	2261	0052496	0053	15411	488											
	050	OBS	0010	2765	3511	2261			15411	488	015				000	022					
		STD	0020	2761	3514	2265	0052190	0105	15412	476											
	050	OBS	0020	2761	3514	2265			15412	476	013				000	024					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WT	CLOUD TY	AMT	NODC STAND

			WATER		WIND		AIR TEMP		NO	
			CLR	TP	DR	F/S	BAR	DRY	WET	V	OBS

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
312229	EZ	32137N	080122W	117	20	09	07	064	1973	013	19	0016	1	16	2	X1	8	2			0019

16 F03 159 267 03

	STD	0000	2787	3485	2235	0054999	0000	15412	501						
064	OBS	0000	2787	3485	2235			15412	501	013			001	005	118
	STD	0010	2784	3484	2235	0055022	0055	15412	499						
064	OBS	0010	2784	3484	2235			15412	499	007			000	000	172
064	OBS	0015	2780	3482	2235			15412	495	010			000	000	142

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNB	NAVE OBS OR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
312229	EZ	32212N	080164W	117	20	09	07	074	1973	013	**20**		0012	1	16	1		X1	8	2	0020

		WATER CLP	WIND TP	DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS
		16	F03	152	267					02

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOT?	NO2	NO3	SIO4	**DOC**
	STD	0000	2814	3323	2104	0067497	0000	15400	483						
074	OBS	0000	2814	3323	2104			15400	483	014			000	031	192
	STD	0010	2795	3466	2218	0056655	0062	15413	477						
074	OBS	0010	2795	3466	2218			15413	477	013			000	020	152

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUI	STAND	DEPTH BOT	DNR	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
					WATER CLR	TP	WIND DR	S/S	BAR	AIR TEMP DRY	WET V	NO OBS										
	CASTMSG		CTYPE	DEPTH	TEMP		SAL		SIGMAT	SPVOLAN	DYNDPH	SVF		OXY	PO4	TOTP	NO2	NO3	SIO4	DOC		
312229	EZ		31578N	080445W	117	10	09	07	121	1973	013	21		0010	1	99	0		X1	8	3	0021
									13	04	F01	163	278		02							
			STD	0000	2796		3247		2053		0272403	0000	15388	514								
	121		OBS	0000	2796		3247		2053				15388	514	024			000	051	178		
			STD	0010	2796		3439		2197		0259827	0056	15410	467								
	121		OBS	0010	2796		3439		2197				15410	467	024			000	043	101		

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUI	DEPTH STAND	BOT	DNE	NAVE OBS DP	HT	P	S	WC	CLOUD TY	AMT	NODC STAND

	WATER CLR	TP	WIND DR	S/S	BAR	AIR TEMP DRY	WET	V	NO OBS

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	AOU	TOTP	NO2	NO3	SIO4	DOC
312229	EZ	31555N	080393W	117	10	09	07	133	1973	013	22	0012	1	99	0		X1	B	3			0022
						11	04	E01	166	283		01										
		STD	0000	2774	3459	2219		0356468	0000	15406	473											
	133	OBS	0000	2774	3459	2219				15406	473	021							000	036	174	

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUD	ORIGINATOR STAND	DEPTH BOT	DNR	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSD	ID	MO	DY	HR	YEAR	ORIGINATOR CRUI	STAND	DEPTH BOT	DVF	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
													WATER CLR	TP	DR	WIND F/S	BAR	AIR TEMP DRY	WET	V	OBS	
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVPLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
312229	FZ	31491N	080235W	117	10	09	07	173	1973	013	24		0018	1	99	9			X1	8	4	0024
						11	99	999	173	239			23									
		STD	0000	2779	3515	2260	0353500	0000	15413	436												
173		285	0000	2779	3515	2260			15413	436	021				000	019	144					
		STD	0019	2752	3530	2280	0353726	0052	15419	436												
173		285	0019	2752	3530	2290			15419	436	211				000	018	159					
173		285	0019	2713	3558	2313			15436	474	012				000	022	204					

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUZ	STAND	DEPTH BOT	OBS	WAVE OBS DIR	HT	P	S	CLOUD WC	TY	AMT	NODC STAND
				WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS									

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
312229	52	31445N	0801304	117	10	09	07	195	1973	013	25	0029	1	14	1			XI	9	5	0025

14 501 159 300 04

	STD	0000	2890	3578	2270	0051578	0000	15444	432						
195	OBS	0000	2890	3578	2270			15444	432	000			001	002	194
	STD	0010	2774	3575	2306	0049175	0050	15420	510						
195	OBS	0010	2774	3575	2306			15420	510	000			011	003	144
	STD	0020	2474	3598	2418	0037556	0093	15358	536						
195	OBS	0020	2474	3598	2418			15356	536	000			010	012	122
195	OBS	0029	2446	3603	2439			15352	542	000			000	013	168

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSG	ID	MO	DY	HR	YEAR	ORIGINATOR GRID	ORIGINATOR STAND	DEPTH BOT	DEPTH DUP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WX	CLOUD TY	CLOUD AMT	NODC STAND

	CAST	MSG	CTYPE	DEPTH	WATER CLR	WATER TP	WIND DR	WIND S	WIND GUS	AIR TEMP DRY	AIR TEMP WET	WIND V	WIND DRS	SVS	DYNDPH	SVS	CXY	PO4	TOTP	NO2	NO3	SIO4	DOC
3122229	EZ	31405N	080030W	117	10	09	07	210	1973	013	26			0032	1	14	1		X1	8	4		0026
									14	F01	152	317			04								
			STD	0000	2848	3563	2273																
210			OBS	0000	2848	3563	2273	0251314	0000	15433	503												
			STD	0010	2762	3561	2300			15433	503	003											
210			OBS	0010	2762	3561	2300	0249804	0059	15415	510												
			STD	0020	2494	3602	2415			15415	510	019											
210			OBS	0020	2494	3602	2415	0237847	0093	15362	540												
			STD	0030	2326	3622	2481			15362	540	009											
210			OBS	0032	2304	3624	2498	0231633	0128	15325	536												
										15320	531	007											

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR GRID	ORIGINATOR STAND	DEPTH BOT	DEP	WAVE OBS DR	HT	P	S	CLOUD WC	TY	AMT	NODC STAND
											WATER CLR	WIND TP	DR	S/S	BAR	AIR TEMP DRY	WET	V	NO OBS			

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
312229	EZ	31337N	0794734W	116	19	09	08	001	1973	013	**27**		0050	1	99	0		X1	B	2		0027
									14	501	156	311			06							
		STD	0000	2912	3488	2195	0058741	0000	15439	452						
001		OBS	0000	2912	3488	2195			15439	462	302			000	011	168
		STD	0010	2874	3546	2252	0053408	0055	15439	485						
001		OBS	0010	2874	3546	2252			15439	495	304			001	014	118
		STD	0020	2830	3592	2301	0043746	0107	15436	520						
001		OBS	0020	2830	3592	2301			15436	520	030			009	012	112
		STD	0030	2785	3605	2325	0046447	0155	15429	498						
001		OBS	0030	2785	3605	2325			15429	498	302			000	333	134
001		OBS	0040	2350	3622	2472			15333	520	305			030	312	100
		STD	0050	2291	3630	2496	0033204	0231	15321	510						
001		OBS	0050	2291	3630	2496			15321	510	300			030	013	128

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRAD	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND

			WATER		WIND		AIR TEMP		NO										
	CASTMSG	CTYPE	DEPTH	TEMP	CLR	TP	DR	E/S	BAR	DRY	WET W	OBS							DOC
312229	FZ	31303N	079385W	116	15	09	08	015	1973	013	28		0135	1	95	0		X1	9 2			0028

14 F01 169 306 07

	STD	0000	2868	3474	2200	0058340	0000	15428	483								
010	OBS	0000	2868	3474	2200			15429	483	004			001	011	138		
	STD	0010	2849	3564	2274	0051283	0055	15435	505								
010	OBS	0010	2848	3564	2274			15435	505	006			000	010	124		
	STD	0020	2848	3604	2304	0043455	0105	15441	435								
010	OBS	0020	2848	3604	2304			15441	435	001			000	032	144		
	STD	0030	2793	3606	2323	0046656	0152	15431	511								
	STD	0050	2619	3613	2385	0040865	0240	15397	512								
010	OBS	0050	2619	3613	2385			15397	512	001			000	012	096		
010	OBS	T0074	2299	3631	2495			15327	457	014			020	010	096		
	STD	0075	2298	3631	2498	0030148	0329	15324	461								
010	OBS	T0098	2046	3627	2563			15265	506	021			020	029	100		
	STD	0100	2027	3626	2567	0023646	0336	15260	506								
	STD	0125	1804	3613	2614	0019231	0449	15203	443								
010	OBS	T0130	1764	3609	2621			15183	428	056			032	056	138		

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSD	ID	MO	DY	HR	YEAR	ORIGINATOR CRUISE	DEPTH STANDARD	DEPTH BOTTOM	DUP	WAVE OBS DIR	WAVE OBS HT	WAVE OBS PER	CLOUD TYPE	CLOUD AMT	NODC STANDARD
														WATER CLR	WATER TP	WIND DIR	WIND F/S	AIR TEMP BAR	AIR TEMP DRY	AIR TEMP WET	W OBS
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOT?	NO2	NO3	SI04	DOC			
312229	E?	31284N	079338W	116	19	09	08	032	1973	013	29		0250	1	99	0		X1	8 2			0029
								14	E01	166	326			01								
		STD	0000	2852	3542	2256	0052946	0000		15432	485											
	032	OBS	0000	2852	3542	2256				15432	485	001						000	007	168		

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRUS	STAND	DEPTH RCT	DUP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STANC
313229	FZ	31260N	07928?W	116	19	09	08	056	1973	013	30		0510	1	99	0		Y1	8	?	0030

	CASTMSG	CTYPE	DEPTH	WATER CLR TEMP	WIND DR F/S	BAR SAL	SIGMAT	SPVOLAN	DYNDPH	AIR TEMP DRY	WET V	NO CRS	SVE	OXY	PO4	TOT?	NO2	NO3	SIO4	DOC
		STD	0000	2860	3608	2303	0048461	0000					15441	477						
	056	OBS	0000	2860	3608	2303							15441	477	009			000	014	174
	056	OBS	0009	2844	3610	2310							15439	472	007			000	021	168
		STD	0010	2844	3610	2310	0047875	0048					15439	472						
		STD	0020	2845	3609	2309	0048000	0096					15441	474						
	056	OBS	T0028	2845	3608	2308							15442	476	004			000	007	158
		STD	0030	2834	3610	2313	0047660	0144					15440	479						
	056	OBS	T0045	2740	3620	2351							15423	495	005			000	003	174
		STD	0050	2693	3622	2368	0042451	0234					15414	492						
		STD	0075	2457	3631	2448	0034916	0331					15365	475						
	056	OBS	T0092	2292	3633	2498							15329	464	010			014	018	174
		STD	0100	2203	3632	2523	0027870	0409					15307	444						
		STD	0125	1957	3629	2587	0021926	0471					15245	394						
	056	OBS	T0130	1914	3628	2598							15234	396	034			066	036	149
		STD	0150	1779	3615	2622	0018589	0522					15197	370						
	056	OBS	T0174	1617	3598	2648							15151	353	069			104	061	158
		STD	0200	1411	3574	2675	0013617	0602					15087	337						
		STD	0250	1094	3537	2709	0010403	0662					14993	321						
	056	OBS	T0260	1043	3531	2714							14966	320	131			257	232	108
		STD	0300	0888	3514	2727	0008734	0710					14914	335						
	056	OBS	T0345	0777	3502	2734							14877	348	159			261	177	129
		STD	0400	0768	3501	2735	0008076	0794					14882	357						
	056	OBS	T0432	0762	3500	2735							14885	360	170			235	154	144

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR GRID	ORIGINATOR STAND	DEPTH PRT	DEPTH ONE	WAVE OBS DP	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
312229	E7		31230N	079154W	116	19	09	08	102	1973	013	31		0455	1	99	0			X1	8	2

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
			WATER CLR	WIND TP	WIND DR	WIND S/S	AIR TEMP RAD	AIR TEMP DRY	AIR TEMP WET	NO V	NO OBS				
								32 E01	164	267		10			
	STD	0000	2852	3602	2301	0048643	0000	15438	482						
102	OBS	0000	2852	3602	2301			15433	482	303		002	017	160	
	STD	0010	2848	3601	2302	0048631	0049	15435	479						
102	OBS	0010	2848	3601	2302			15430	479	303		001	012	126	
102	OBS	T0019	2848	3601	2302			15440	457	003		000	012	106	
	STD	0020	2847	3601	2302	0048628	0097	15441	459						
	STD	0030	2842	3605	2307	0048606	0146	15441	473						
102	OBS	T0049	2832	3613	2316			15443	486	001		000	009	134	
	STD	0050	2826	3613	2318	0047235	0241	15442	485						
	STD	0075	2673	3620	2373	0042100	0353	15414	456						
102	OBS	T0097	2526	3631	2427			15385	430	012		011	019	154	
	STD	0100	2502	3635	2428	0036020	0460	15380	423						
	STD	0125	2309	3661	2515	0028761	0531	15341	382						
102	OBS	T0146	2154	3670	2566			15304	370	029		037	018	090	
	STD	0150	2123	3669	2573	0023324	0537	15299	375						
102	OBS	T0195	1817	3645	2636			15219	418	042		075	028	102	
	STD	0200	1801	3642	2637	0017294	0698	15215	417						
	STD	0250	1605	3610	2660	0015232	0730	15161	403						
102	OBS	T0290	1410	3583	2682			15103	391	103		162	271	090	
	STD	0300	1312	3570	2693	0012189	0848	15071	385						
102	OBS	T0385	0805	3507	2734			14895	352	174		227	154	076	
	STD	0400	0776	3503	2736	0009011	0949	14896	352						
102	OBS	T0432	0775	3503	2735			14891	348	167		233	190	074	

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUD	DEPTH STAND	NAVE OBS BOT	DUP	OF	HT	P	C	WE	CLOUD TY	AMT	NODC STAND

			WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET V	DBS

	CASTNSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVE	DYY	P04	TYTP	NO2	N33	SI04	DOC
31222S	EZ	31170N	079070W	116	19	09	08	124	1973	013	**32**	0535	1	99	0		Y1	8	4			0032

36 F01 176 267 10

	STD	0000	2872	3616	2305	0046270	0000	15444	524							
124	OBS	0000	2872	3616	2305			15444	524	006				000	010	134
	STD	0010	2868	3620	2309	0047905	0048	15445	568							
124	OBS	0010	2868	3620	2309			15445	568	010				006	012	106
	STD	0020	2870	3615	2305	0048365	0096	15447	531							
124	OBS	0020	2870	3615	2305			15447	531	011				000	009	114
	STD	0030	2853	3611	2308	0048134	0144	15444	536							
	STD	0050	2804	3610	2323	0046769	0239	15437	540							
124	OBS	T0060	2804	3610	2323			15437	540	011				000	014	128
	STD	0075	2706	3625	2366	0042757	0351	15422	528							
	STD	0100	2589	3640	2414	0038235	0453	15401	509							
124	OBS	T0100	2589	3640	2414			15401	509	013				006	008	122
	STD	0125	2446	3660	2474	0032677	0541	15374	490							
124	OBS	T0143	2304	3670	2523			15345	459	021				028	016	122
	STD	0150	2297	3670	2525	0027898	0617	15343								
124	OBS	T0197	2008	3660	2598			15275		036				051	024	106
	STD	0200	2000	3660	2600	0020925	0739	15273								
	STD	0250	1852	3651	2631	0018080	0836	15239								
124	OBS	T0294	1468	3634	2656			15188		037				051	018	160
	STD	0300	1472	3630	2659	0015526	0920	15192								
124	OBS	T0388	1292	3570	2697			15078		109				191	092	148
	STD	0400	1241	3562	2701	0011601	1056	15082								
124	OBS	T0488	0865	3512	2720			14935		173				250	161	148

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	AD	DY	HR	YEAR	ORIGINATOR CRUISE	DEPTH STAND	BOT	DNR	WAVE OBS DR	HT	P	S	WD	CLOUD TY	AMT	NODC STAND
312229		EZ	30524N	079260W	116	09	09	08	174	1973	013	**33**		0750	1		99	0			X1	8 4		0033

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
								29	F01	186	311			10		
		STD	0000	2892	3608	2292	0049482	0000	15447							
174		OBS	0000	2892	3608	2292			15447		007			000	010	154
		STD	0010	2862	3608	2302	0048568	0049	15443							
174		OBS	0010	2862	3608	2302			15443		005			000	009	154
		STD	0020	2864	3610	2303	0048538	0058	15445							
174		OBS	0020	2864	3610	2303			15445		006			000	013	144
		STD	0030	2858	3610	2305	0048425	0146	15445							
		STD	0050	2812	3609	2320	0047088	0242	15439							
174		OBS	0050	2812	3609	2320			15439		007			000	009	180
		STD	0075	2657	3634	2388	0040654	0351	15412							
		STD	0100	2491	3652	2454	0034486	0445	15380							
174		OBS	T0100	2491	3652	2454			15380		012			011	010	154
		STD	0125	2285	3665	2525	0027816	0523	15335							
		STD	0150	2123	3670	2574	0023188	0587	15299							
174		OBS	T0150	2123	3670	2574			15299		023			045	016	124
		STD	0200	1929	3655	2615	0019460	0693	15253							
174		OBS	T0200	1923	3655	2615			15253		043			058	023	102
		STD	0250	1826	3644	2633	0017908	0787	15231							
		STD	0300	1717	3630	2649	0016537	0873	15205	410						
174		OBS	T0300	1717	3630	2649			15205	410	051			088	030	139
		STD	0400	1491	3591	2673	0014409	1028	15145	330						
174		OBS	T0400	1491	3591	2673			15145	330	081			147	056	139
		STD	0500	1198	3548	2698	0012100	1160	15062	330						
174		OBS	T0500	1198	3548	2698			15062	330	133			194	105	124

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRUISE	DEPTH STANDARD	BOTTOM	DNP	WAVE OBS DIR	HT	P	S	WEATHER	CLOUD TYPE	CLOUD AMT	NODC STANDARD

	WATER CLR	TP	DR	WIND F/S	BAR	AIR TEMP DRY	WET	V	NO OBS

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
312229	E7	30581N	0793685W	116	09	09	08	196	1973	013	**34**		3530	1	99	0		X1	8	6		0034
													99	F00	166	30E			10			
		STD	0000	2837	3612	2280	0050648	0000	15457	539												
	196	OBS	0000	2937	3612	2280			15457	539	008				000	008	098					
		STD	0010	2872	3610	2300	0048750	0050	15445	526												
	196	OBS	0010	2872	3610	2300			15445	526	005				000	014	102					
		STD	0020	2864	3611	2304	0048465	0098	15445	534												
	196	OBS	0020	2864	3611	2304			15445	534	001				002	046	148					
		STD	0030	2851	3612	2309	0049024	0147	15444	534												
		STD	0050	2798	3614	2328	0046287	0241	15436	533												
	196	OBS	T0050	2798	3614	2328			15436	533	002				000	010	144					
		STD	0075	2662	3625	2381	0041372	0350	15412	510												
		STD	0100	2505	3639	2440	0035830	0447	15381	488												
	196	OBS	T0100	2505	3639	2440			15381	488	031				020	000	098					
		STD	0125	2298	3662	2519	0028343	0527	15338	469												
		STD	0150	2129	3672	2574	0023171	0582	15300	448												
	196	OBS	T0150	2129	3672	2574			15300	448	025				039	021	100					
		STD	0200	1911	3652	2617	0019257	0658	15247	409												
	196	OBS	T0200	1911	3652	2617			15247	409	041				068	020	102					
		STD	0250	1712	3613	2637	0017505	0730	15194	391												
		STD	0300	1494	3578	2660	0015333	0872	15131	373												
	196	OBS	T0300	1494	3578	2660			15131	373	095				150	077	098					
		STD	0400	0993	3521	2714	0010260	1000	14972	333												
	196	OBS	T0400	0990	3521	2714			14972	332	160				257	150	088					
		STD	0500	0858	3507	2726	0003177	1097	14934	331												
	196	OBS	T0500	0858	3507	2726			14934	331	182				220	130	070					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR GRID	ORIGINATOR STANC	DEPTH BOT	DEPTH DUP	NAVE OBS DP	NAVE OBS HT	NAVE OBS P	NAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANC
312229	EZ	31042N	079470W		116	19	09	08	239	1973	013	35		0243	1	29	0		X1	8 2	0035

	CASTMSG	CTYPE	DEPTH	WATER CLR	WATER TP	WIND DR	WIND S/S	BAR	AIR TEMP DRY	AIR TEMP WET	V OBS	SVP	DXY	PO4	TOTP	NO2	NO3	SIO4	DOC
						21	99	500	166	289		08							
		STD	0000		2910		3529		2227		0355738	0000	15443	515					
239		OBS	0000		2910		3529		2227				15443	515	006		000	012	148
		STD	0010		2866		3571		2273		0351356	0054	15440	504					
239		OBS	0010		2866		3571		2273				15440	504	009		002	010	128
239		OBS	T0013		2854		3571		2277				15438	529	007		000	014	138
		STD	0020		2850		3573		2280		0350706	0105	15438	529					
		STD	0030		2800		3595		2313		0347659	0154	15431	531					
239		OBS	T0047		2694		3622		2368				15414	534	007		000	008	132
		STD	0050		2665		3623		2378		0341513	0243	15403	530					
		STD	0075		2428		3633		2459		0333915	0337	15350	498					
239		OBS	T0094		2260		3641		2514				15321	471	010		030	021	082
		STD	0100		2213		3628		2518		0328388	0415	15309	463					
		STD	0125		2015		3585		2539		0326423	0484	15256	432					
239		OBS	T0141		1886		3565		2557				15220	412	045		070	041	119
		STD	0150		1800		3561		2575		0323013	0543	15197	400					
239		OBS	T0188		1498		3540		2630				15100	358	113		121	039	118
		STD	0200		1423		3533		2641		0316841	0645	15086	347					
239		OBS	T0226		1296		3517		2655				15046	328	057		141	077	106

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUD	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE DIR	WAVE DIR HT	WAVE PER	CLOUD WX	CLOUD TY	CLOUD AMT	NODC STAND
					WATER CLR	WATER TP	WIND DR	WIND S/S	BAR	AIR TEMP DRY	AIR TEMP WET	NO OBS									
CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC					
312229	EZ	31048N	079535W	116	19	09	09	015	1973	013	36		0113	1	99	0			XO	0	0036
													99	F00	166	289			06		
		STD	0000	2922	3465	2175		0060714	0000	15438	518										
	015	OBS	0000	2922	3465	2175				15438	518	303				000	030	128			
	015	OBS	T0009	2883	32538	20290					527	002				003	009	174			
		STD	0010	2888	3492	2207		0057697	0059	15436	526										
	015	OBS	T0018	2896							523	004				002	012	128			
		STD	0020	2869	3516	2230		0055484	0116	15436	523										
		STD	0030	2740	3535	2287		0050116	0169	15412	522										
	015	OBS	T0045	2560	3555	2359				15376	521	305				003	016	114			
		STD	0050	2506	3555	2376		0041686	0260	15364	519										
		STD	0075	2250	3563	2459		0033972	0355	15307	491										
	015	OBS	T0079	2211	3566	2471				15298	484	010				026	028	114			
	015	OBS	T0098	2036	3583	2532				15257	441	023				030	027	118			

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUD	DEPTH STAND	BOT	DNP	WAVE OBS DR	HT	P	S	CLOUD WC	TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOT2	NO2	NO3	SIO4	DOC					
312229	EZ	31068N	079590W	116	19	09	09	046	1973	013	37		3041	1	20	1			X1	8	2	0037
									20	F02	179	278		04								
			STD	0000	2828	3450	2195	0058805	0000	15417	498											
	046		OBS	0000	2828	3450	2195			15417	498	003			000	008	158					
			STD	0010	2821	3491	2228	0055679	0057	15421	509											
	046		OBS	0010	2821	3491	2228			15421	509	003			000	009	188					
			STD	0020	2536	3589	2392	0040012	0105	15370	518											
	046		OBS	0020	2536	3589	2392			15370	518	002			000	067	106					
			STD	0030	2349	3588	2448	0034721	0142	15327	515											
	046		OBS	0040	2259	3588	2474			15306	501	010			015	020	168					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAND	DEPTH BOT	DEPTH ONP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANC
312229	EZ	31130N	080156W		117	10	09	09	075	1973	013	38		0039	1	20	2			Y1	8 5	0038

	CASTMSG	CTYPE	DEPTH	WATER CLR TEMP	WATER TP OR SAL	WIND F/S BAS SIGMAT	AIR TEMP DRY SPVOLAN	AIR TEMP WET V DYNDPH	NO OBS SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
				20	P04	173	261		05							
		STD	0000	2770	3578	2310	0047787	0000	15418	511						
	075	OBS	0000	2770	3578	2310			15418	511	005			003	005	178
		STD	0010	2760	3581	2316	0047309	0048	15418	513						
	075	OBS	0010	2760	3581	2316			15418	513	007			000	003	128
		STD	0020	2510	3596	2406	0038747	0091	15365	505						
	075	OBS	0020	2510	3596	2406			15365	505	011			003	012	138
		STD	0030	2403	3606	2445	0034986	0127	15342	503						
	075	OBS	0030	2403	3606	2445			15342	503	012			000	020	158
	075	OBS	0039	2262	3614	2493			15310	507	018			004	019	124

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STAND
						WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS								
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312229	EZ	31185N	080304W	117	10	09	09	105	1973	013	39		0030	1	27	2			X1	8	2	0039
							27	F03	163	267			04									
		STD	0000	2760	3562	2301	0048625	0000	15414	515												
	105	OBS	0000	2760	3562	2301			15414	515	009			001	008	184						
		STD	0010	2745	3564	2308	0048065	0048	15413	515												
	105	OBS	0010	2745	3564	2308			15413	515	021			003	010	144						
		STD	0020	2460	3591	2417	0037655	0031	15352	499												
	105	OBS	0020	2460	3591	2417			15352	499	009			001	018	158						
	105	OBS	0025	2429	3598	2432			15347	516	008			002	012	106						

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STANO
						WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	NO OBS V									
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312229	EZ	31224N	080412W	117	10	09	09	120	1973	013	40		0021	1	32	2			X1	8	2	0040
						08	32	E03	163	272			03									
		STD	0000	2764	3558	2297	0049044	0000	15415	482												
	120	OBS	0000	2764	3558	2297			15415	482	014			002	020	148						
		STD	0010	2749	3571	2312	0047683	0048	15414	447												
	120	OBS	0010	2749	3571	2312			15414	447	019			000	011	148						
		STD	0020	2730	3558	2308	0048070	0096	15410	475												
	120	OBS	0020	2730	3558	2308			15410	475	022			001	016	154						

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
					WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS									
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	V32	NO3	SIO4	DOC						
312229	EZ	31263N	080523W	117	10	09	09	142	1973	013	41		0017	1	32	2		XI	8	2		0041
								32	F03	183	272		02									
		STD	0000	2817	3392	2155	0062624	0000	15408	523												
	142	OBS	0000	2817	3392	2155			15408	523	027				000	010	168					
		STD	0010	2783	3479	2231	0055359	0059	15412	487												
	142	OBS	0017	2760	3540	2285			15414	462	027				000	026	124					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
											WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS				
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312229	EZ	31280N	080575W	117	10	09	09	156	1973	013	42		0011	1	32	3		X1	8	2		0042
								05	32	F10	183	272		02								
		STD	0000	2869	3206	1998	0377643	0000	15399													
	156	OBS	0000	2869	3206	1998			15399		045			090	021	220						
	156	OBS	0008	2789	3500	2245			15415		030			000	023	148						

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
						WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS								
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVCLAN	DYNDPH	SVF	OXY	PO4	TTTP	NO2	NO3	SI04	DOC						
312229	EZ	31295N	081028W	117	11	09	09	169	1973	013	43		0007	1	99	0			X1	8	3	0043
							99	F00	173	333			01									
		STD	0000	2920	176	1950	0081431	0000	15407	500												
	169	OBS	0000	2920	176	19[illegible]			15407	500	059			000	066	210						

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312229	FZ		30555N	081183W	117	01	09	09	214	1973	013	44		0009	1	18	1			X1	5	6
									18	F02	146	278		02								
			STD	0000	2902	3395	2129	0065101	0000	15427	498											
	214		OBS	0000	2902	3395	2129			15427	498	043								002	030	234
	214		OBS	0009	2811	3475	2219			15417	398	047								002	055	174

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSC	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
					WATER CLR	TP	WIND DR	F/S	BAR		AIR TEMP DRY	WET	V	NO OBS								
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312229	EZ	30544N	081135W	117	01	09	09	229	1973	013	45		0012	1	18	2			X1	5	7	0045
								18	F02	146	272		02									
		STD	0000	2900	3392	2128	0065256	0000	15426	519												
	229	OBS	0000	2900	3392	2128			15426	519	022				002	072	254					
		STD	0010	2813	3499	2237	0054821	0060	15421	481												
	229	OBS	0012	2796	3521	2259			15419	473	022				000	006	164					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STAND
312229	FZ		30534N	081070W	117	01	09	10	000	1973	013	46	0014	1	18	1			X1	5	7	0046

	WATER CLR	WIND TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS
	18	F02	146	272					02

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
		STD	0000	2906	3449	2167	0061427	0000	15433	510						
000		OBS	0000	2906	3448	2167			15433	510	032			000	004	180
		STD	0010	2826	3519	2248	0053791	0058	15425	482						
000		OBS	0014	2794	3548	2280			15422	471	037			000	004	154

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312229	FZ	30512N	080552W	117	00	09	10	020	1973	013	47		0018	1	18	1			X1	8	3	0047
						08	18	F02	152	272			03									
		STD	0000	2847	3576	2283	0050348	0000	15434	493												
	020	OBS	0000	2847	3576	2283			15434	493	026				000		005		164			
		STD	0010	2788	3588	2312	0047674	0049	15425	510												
	020	OBS	0010	2788	3588	2312			15425	510	018				002		006		138			
	020	OBS	0018	2788	3585	2309			15426	505	023				000		004		154			

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312229	EZ	30492N	080451W	117	00	09	10	035	1973	013	48		0029	1	18	1			XI	8	3	3048
									18	F02	159	272			03							
			STD	0000	2790	3583	2307	0048051	0000		15423	518										
	035		OBS	0000	2790	3583	2307				15423	518	016			002	017	178				
			STD	0010	2767	3582	2314	0047473	0048		15420	499										
	035		OBS	0015	2737	3582	2324				15414	489	013			001	042	158				
			STD	0030	2692	3585	2341	0044946	0094		15405	478										
	035		OBS	0038	2591	3594	2379				15384	458	021			004	026	188				

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANC
31	2229	E7	30459N	080282W	117	00	09	10	053	1973	013	**49**	0038	1	22	2			X2	8	8	0049

	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS
	22	F03	146	283		04			

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOT?	NO2	NO3	SIO4	**DOC**
		STD	0000	2890	3523	2229	0055528	0000	15438	487						
053		OBS	0000	2890	3523	2229			15438	487	001			001	014	204
		STD	0010	2809	3535	2265	0052140	0054	15423	504						
053		OBS	0010	2809	3535	2265			15423	504	001			006	011	154
		STD	0020	2699	3609	2356	0043454	0102	15409	505						
053		OBS	0020	2699	3609	2356			15409	505	041			015	017	128
		STD	0030	2552	3615	2407	0038689	0143	15379	501						
053		OBS	0036	2447	3618	2441			15355	496	005			011	018	168

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND

	CASTMSG	CTYPE	DEPTH	WATER TEMP	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	NO V OBS	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
312229	EZ	30426N	080110W	117	00	09	10	008	1973	013	50				0043	1	29	2		X1	8	5		0050
																	29	F04	132	278			05	
		STD	0000	2784	3481	2233							0055200	0000	15410	490						
	088	OBS	0000	2784	3481	2233									15410	490	005			000	009	150
		STD	0010	2581	3543	2344							0044603	0050	15374	511						
	088	OBS	0010	2581	3543	2344									15374	511	003			000	016	174
		STD	0020	2220	3610	2502							0022603	0087	15295	459						
	088	OBS	0020	2220	3610	2502									15295	469	025			036	026	174
		STD	0030	1972	3613	2572							0022977	0113	15232	430						
	088	OBS	0030	1972	3613	2572									15232	430	035			045	037	132
	088	OBS	0043	1836	3612	2606									15196	404	040			080	050	092

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANO
						WATER CLR	WATER TP	WIND DR	WIND E/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS								
312229	EZ	30415N	080056W	117	00	09	10	113	1973	013	51		0092	1	32	3			X1	8	6	0051
									32	F04	125	278		06								

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
		STD	0000	2754	3490	2249	0053621	0000	15405	493						
113		OBS	0000	2754	3490	2249			15405	493	011			000	002	118
		STD	0010	2696	3516	2287	0050006	0052	15397	504						
113		OBS	0010	2696	3516	2287			15397	504	007			002	013	106
		STD	0020	2036	3599	2544	0025571	0090	15246	420						
113		OBS	0020	2036	3599	2544			15246	420	061			059	045	088
		STD	0030	1928	3603	2575	0022640	0114	15219	399						
		STD	0050	1742	3605	2624	0019090	0154	15169	365						
113		OBS	0050	1742	3605	2624			15169	365	057			142	044	088
		STD	0075	1564	3598	2660	0014700	0195	15118	340						
113		OBS	0075	1564	3598	2660			15118	340	083			129	068	066
113		OBS	0092	1549	3593	2660			15116	342	090			147	087	076

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
312229	EZ	30403N	079595W	116	09	09	10	127	1973	013	52		0245	1	32	2		X1	8	6

	WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS
	32	F04	125	278		08			

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
		STD	0000	2806	3515	2251	0053439	0000	15419	483						
127		OBS	0000	2806	3515	2251			15419	483	000			000	011	168
		STD	0010	2805	3530	2262	0052377	0053	15422	490						
127		OBS	0010	2805	3530	2262			15422	490	011			000	007	168
127		OBS	0019	2752	3585	2321			15418	492	005			060		158
		STD	0020	2724	3586	2331	0045875	0102	15412	491						
		STD	0030	2463	3595	2419	0037477	0144	15355	483						
127		OBS	0048	2092	3607	2538			15264	459	033			046	042	142
		STD	0050	2062	3607	2543	0025765	0207	15259	452						
		STD	0075	1824	3609	2606	0019830	0264	15197	383						
127		OBS	0097	1631	3610	2654			15144	341	074			138	056	104
		STD	0100	1606	3607	2657	0015066	0308	15136	339						
		STD	0125	1408	3579	2680	0012938	0343	15075	322						
127		OBS	0146	1260	3559	2695			15026	312	120			204	121	096
		STD	0150	1233	3555	2697	0011350	0373	15017	311						
127		OBS	0196	0970	3520	2718			14928	307	157			238	157	064
		STD	0200	0951	3518	2719	0009273	0424	14921	308						
127		OBS	0241	0797	3503	2732			14863	322	179			255	193	184

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312229	EZ	30382N	079485W	116	09	09	10	164	1973	013	53		0550	1	32	2			X1	8	4	0053
											32	F04	119	300					10			
			STD	0000	2836	3616	2317	0047131	0000	15436	471											
	164		OBS	0000	2836	3616	2317			15436	471	004			000	008	188					
	164		OBS	0009	2838	3615	2316			15438	475	011			000	010	174					
			STD	0010	2839	3615	2315	0047328	0047	15438	474											
	164		OBS	0018	2841	3615	2315			15440	469	087			019	008	138					
			STD	0020	2838	3615	2315	0047362	0095	15440	474											
			STD	0030	2823	3614	2320	0046976	0142	15438	493											
	164		OBS	0045	2800	3613	2327			15436	507	002			003	015	154					
			STD	0050	2732	3616	2351	0044072	0233	15422	502											
			STD	0075	2421	3630	2458	0033969	0330	15356	472											
	164		OBS	0090	2257	3635	2510			15319	448	014			019	020	164					
			STD	0100	2153	3636	2540	0026260	0406	15294	418											
			STD	0125	1935	3637	2600	0020647	0464	15240	362											
	164		OBS	0136	1859	3638	2620			15221	345	049			087	036	148					
			STD	0150	1814	3635	2629	0017982	0513	15210	338											
	164		OBS	0182	1669	3619	2652			15170	327	059			092	044	102					
			STD	0200	1532	3600	2669	0014234	0593	15129	325											
	164		OBS	0238	1274	3565	2697			15047	323	127			172	101	106					
			STD	0250	1193	3554	2704	0010926	0656	15020	324											
			STD	0300	0927	3518	2724	0009054	0706	14928	327											
	164		OBS	0331	0821	3504	2729			14892	328	160			200		138					
			STD	0400	0796	3499	2731	0008432	0793	14889	328											
	164		OBS	0423	0774	3498	2732			14888	327	164			297	182	109					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	CLOUD WC	TY	AMT	NODC STAND
312229		EZ	30361N	079375W	116	09	09	10	210	1973	013	54	0730	1	29	3			X6	5	8	0054
									29	F03	098	272			10							

	CASTMSG	CTYPE	DEPTH	WATER TEMP	WIND CLR	TP	DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
		STD	0000	2872	3608	2299			0048844	0000				15443	466						
210		OBS	0000	2872	3608	2299								15443	466	005			000	009	148
		STD	0010	2875	3612	2301			0048695	0049				15446	480						
210		OBS	0010	2875	3612	2301								15446	480	017			025	023	102
		STD	0020	2884	3614	2299			0048884	0099				15450	476						
210		OBS	0020	2884	3614	2299								15450	476	001			002	015	
		STD	0030	2875	3613	2302			0049681	0146				15449	476						
		STD	0050	2856	3612	2307			0048265	0243				15448	477						
210		OBS	0050	2856	3612	2307								15448	477	000			006	014	
		STD	0075	2707	3626	2366			0042739	0357				15422	455						
		STD	0100	2541	3640	2429			0036814	0456				15390	431						
210		OBS	0100	2541	3640	2429								15390	431	005			014	016	
		STD	0125	2331	3661	2508			0029408	0539				15346	397						
		STD	0150	2155	3670	2565			0024035	0606				15307	375						
21		OBS	0150	2155	3670	2565								15307	375	029			035	022	090
		STD	0200	1901	3654	2621			0018866	0713				15245	363						
210		OBS	0200	1901	3654	2621								15245	363	030			060	023	064
		STD	0250	1705	3625	2648			0016457	0802				15193	362						
		STD	0300	1543	3601	2667			0014718	0880				15149	363						
210		OBS	0300	1543	3601	2667								15149	363	078			184	048	072
		STD	0400	1320	3568	2690			0012754	1017				15089	332						
210		OBS	0400	1320	3568	2690								15089	332	112			180	090	072
		STD	0500	1103	3534	2705			0011356	1137				15027	301						
210		OBS	0500	1103	3534	2705								15027	301	144			256	130	076

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	CLOUD WC	TY	AMT	NODC STAND
											WATER CLR	TP	DR	WIND F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312229	EZ		30100N	080446W	117	00	09	11	029	1973	013	55	0820	1	29	2			X1	8	6	3055
									29	F03	105	272		10								
			STD	0000	2837	3611	2313	0047523	0000	15436	473											
	029		OBS	0000	2837	3611	2313			15436	473	006			000	009	142					
			STD	0010	2841	3611	2312	0047693	0049	15439	469											
	029		OBS	0010	2841	3611	2312			15439	469	000			000	012	158					
	029		OBS	0019	2852	3610	2307			15442	490	003			000	008	138					
			STD	0020	2852	3610	2307	0048137	0096	15442	490											
			STD	0030	2848	3611	2309	0048006	0144	15443	488											
	029		OBS	0048	2842	3614	2313			15445	480						148					
			STD	0050	2835	3614	2316	0047435	0239	15444	478											
			STD	0075	2727	3622	2357	0043640	0353	15426	452											
	029		OBS	0097	2593	3631	2406			15400	429	013			004	005	154					
			STD	0100	2565	3635	2418	0037924	0455	15395	426											
			STD	0125	2344	3656	2501	0030071	0540	15349	402											
	029		OBS	0145	2176	3662	2553			15311	390	029			044	020	108					
			STD	0150	2133	3659	2563	0024239	0608	15300	372											
	029		OBS	0193	1809	3633	2629			15215	321	054			082	029	112					
			STD	0200	1767	3627	2634	0017618	0712	15203	321											
			STD	0250	1507	3587	2664	0014828	0793	15128	319											
	029		OBS	0290	1338	3562	2681			15077	318	123			172	090	108					
			STD	0300	1306	3558	2685	0012950	0863	15067	313											
	029		OBS	0387	1070	3528	2707			14996	288	131			209	119	092					
			STD	0400	1042	3525	2709	0010724	0991	14989	291											
	029		OBS	0485	0902	3509	2720			14948	309						070					

DRIFT BOTTLE CODING FORM

(Provisional)

NATIONAL OCEANOGRAPHIC DATA CENTER
WASHINGTON, D.C. 20390

CRUISE AND PROJECT NO.	E-13-73
INSTITUTE	SKidaway
NAME OF PLATFORM	Eastward

| NODC | RELEASE INFORMATION | | |

CRUISE AND PROJECT NO.
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DRIFT BOTTLE CODING FORM

(Provisional)

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WASHINGTON, D.C. 20390

| NODC | RELEASE INFORMATION | | |

SURFACE DRIFTER DATA

Four drift bottles were released at each of the following stations: 1, 3, 5, 16, 18, 20, 21, 23, 25, 39, 41, 43, 44, 46, 48.

To date the return represents 52% of the bottles released. The general drift was toward the southwest at speeds from 1 to 11 miles per day.

Table 2. Chlorophyll *a* and C^{14} uptake with respect to depth.

Station	Depth (m)	Chlorophyll *a* (mg/m^3)	C^{14} uptake ($mgC/m^3/day$)
2	0	.245	18.7
	2.5	.322	12.9
	5.0	.189	49.8
	8.0	.216	3.6
4	0	.109	3.5
	5.5	.121	5.5
	10.5	.131	0.1
	17.5	.649	84.7
8	0	.071	3.9
	8	.051	1.5
	16.5	.073	1.8
	27.0	.461	7.0
	54.0	.255	0.9
10	0	.057	0.3
	8	.061	5.3
	16.5	.081	1.4
	27	.100	4.4
	54	.239	3.2
11	0	.071	3.4
	10.5	.063	21.8
	21	.047	2.9
	35	.050	0.9
	70.5	.121	2.0
15	0	.075	1.7
	5.5	.079	2.1
	10.5	.068	6.6
	17.5	.075	5.0
17	0	.102	1.7
	5.5	.076	6.9
	10.5	.088	11.2
	17.5	.116	17.3
19	0	.391	45.9
	2.5	.391	41.6
	5	.553	220.9
	8	.503	122.9

*The chlorophyll and carbon-^{14} productivity data are only considered accurate to 2 significant figures, at best, even though more are reported.

Table 2. (continued)

Station	Depth (m)	Chlorophyll a (mg/m^3)	C^{14} uptake ($mgC/m^3/day$)
22	0	.166	31.3
	4.5	.186	136.7
	9	.183	313.0
24	0	.107	30.1
	4.5	.186	21.6
	9	.299	149.1
	15		100.9
27	0	.064	7.4
	6	.052	19.3
	12	.041	10.0
	20.5	.054	7.6
30	0	.018	1.5
	8	.025	9.4
	16.5	.093	5.2
	27	.120	4.3
35	0	.053	2.0
	8.5	.042	7.1
	17	.037	0.6
	28.5	.051	0.6
	57	.097	3.9
38	0	.068	3.5
	6	.081	1.7
	12	.024	3.7
	20.5	.026	60.0
40	0	.143	7.4
	3	.098	21.9
	6.5	.167	18.3
	11	.352	43.5
42	0	.436	70.3
	2	.442	42.3
	4	.458	30.6
	7	.588	118.8
45	0	.419	39.8
	3	.422	37.9
	6.5	.408	20.5
	11	.607	52.9
47	0	.303	27.4
	3	.357	42.5
	6.5	.339	27.7
	11.0	.334	45.8

Table 2. (continued)

Station	Depth (m)	Chlorophyll *a* (mg/m^3)	C^{14} uptake ($mgC/m^3/day$)
49	0	.032	1.7
	6	.032	0.6
	12	.031	3.6
	20.5	.035	3.9
52	0	.080	2.6
	5	.083	2.6
	9.5	.096	4.3
	16.0	.138	9.0
	32.5	.050	23.1

Table 3. Surface chlorophyll *a*, depth integrated chlorophyll *a* and C^{14} values.

Station	Surface Chlorophyll mg/m^3	Depth Integrated Chlorophyll *a* mg/m^2	Depth Integrated C^{14} $mgC/m^2/day$
1	.352		
2	.290	1.9	206
3	.266		
4	.120	3.9	333
5	.105		
6	.099		
7	.073		
8	.093	13.6	189
9	.160		
10	.057	6.6	184
11	.031	4.9	339
12	.117		
13	.054		
14	.069		
15	.049	1.3	72
16	.058		
17	.102	1.6	167
18	.357		
19	.391	3.8	997
20	.211		
21	.435		
22	.166	1.6	1460
23	.232		
24	.107	2.7	1280
25	.146		
26	.069		
27	.064	1.0	239
28	.113		
29	.040		
30	.018	1.8	155
31	.026		
32	.122		
33	.087		
34	.280		
35	.053	3.4	138
36	.070		
37	.051		
38	.068	1.0	287
39	.099		
40	.143	2.1	259
41	.135		
42	.436	3.3	410
43	1.316 & 2.048		
44	.927		
45	.419	5.0	383
46	.472		
47	.303	3.7	394

Table 3. (continued)

Station	Surface Chlorophyll mg/m^3	Depth Integrated Chlorophyll a mg/m^2	Depth Integrated C^{14} $mgC/m^2/day$
48	.117		
49	.032	0.6	50
50	.058		
51	.080		
52	.080	3.1	330
53	.040		
54	.030		
55	.044		
56	.035		

Table 4. Particulate Organic Carbon (POC) and Nitrogen (PN)

Station	Depth (m)	POC (µgC/L)	PN (µgN/L)	C:N (atomic)
1	0	178	21	10:1
3	0	84	13	7:1
5	0	41	14	3:1
8	0	70	10	8.5:1
8	27	100	4	28:1
11	0	50	-	-
13	0	76	13	7:1
16	0	74	-	-
18	0	192	-	-
19	0	185	17	13:1
21	0	234	40	7:1
22	4.5	63	13	6:1
23	0	135	23	7:1
24	0	486	76	8:1
27	0	55	-	-
36	0	131	30	5:1
39	0	130	-	-
41	0	108	9	14:1
43	0	240	34	8:1
44	0	379	36	12:1
45	0	150	-	-
45	6.5	174	-	-
46	0	232	28	9:1
48	0	259	22	16:1
51	0	74	13	7:1
52	0	47	-	-
52	32.5	97	16	7:1

ZOOPLANKTON

Sampling method: Plankton samples were collected with a half meter No. 20 mesh net towed obliquely through the entire water column. Although an impeller flow meter was mounted on the net, these measurements are only qualitative.

Data: The following data are the five dominant genera at each station in order of abundance. The average Cephalothorax length is also given.

Table 5. Generic Composition (five dominant genera at each station listed in order of abundance) and respective size ranges (Cephalothorax length in mm).

Station	Genus	Size (mm)
1	*Calanus* sp.	.62
	Temora turbinata	.65
	Corycella carinata	.50
	Labidocera nerii	.52
	Ave:	.57
21	*Calanus* sp.	.61
	Temora turbinata	.69
	Corycaeus sp.	.35
	Centropages sp.	1.10
	Oithona sp.	.77
	Ave:	.70
44	*Calanus* sp.	.64
	Eucalanus sp.	.83
	Centropages sp.	.90
	Oithana sp.	.64
	Corycella sp.	.40
	Ave:	.68
7	*Calanus* sp.	.63
	Oncaea sp.	.59
	Corycella carinata	.67
	Temora turbinata	.64
	Centropages typicus	1.11
	Ave:	.73
27	*Calanus* sp.	.73
	Temora turbinata	.70
	Calocalanus pavo	.50
	Oithana sp.	.60
	Ave:	.63
30	*Calanus* sp.	.77
	Corycella sp.	.50
	Temora turbinata	.70
	Oithana sp.	.60
	Calocalanus pavo	.50
	Ave:	.61

Table 5. (continued)

Station	Genus	Size (mm)
50	*Calanus* sp.	.80
	Oithona sp.	.69
	Oncaea sp.	.59
	Corycella sp.	.65
	Centropages typicus	1.10
	Ave:	.77
53	*Corycella carinata*	.80
	Calocalanus pavo	.63
	Calanus sp.	1.20
	Sapphirina sp.	1.10
	Ave:	.93

Table 6. Mean grain size, sorting, skewness and kurtosis (Folk and Ward values) for sediments from E-13-73. All values in phi (ϕ)where applicable.

Station #	M_z	I	S_k	Kg
1	0.91	1.03	0.12	0.90
7	0.98	1.54	-0.27	0.82
9	hard bottom			
10	hard bottom			
13	2.95	0.92	0.23	1.29
14	1.09	0.71	-0.03	0.94
17	0.92	0.90	0.02	0.88
18	0.82	0.97	-0.60	0.61
21	2.26	0.82	-0.41	2.45
23	1.11	0.83	-0.11	1.07
29	3.42	1.24	-0.05	0.92
36	1.27	0.51	-0.12	1.05
38	0.54	1.03	-0.08	0.96
41	2.43	0.44	-0.15	1.49
42	1.88	0.68	-0.35	1.08
44	1.38	1.59	-0.55	0.81
46	1.85	0.49	-0.18	1.05
50	0.81	0.67	-0.03	1.21

Table 7. Mean grain size, sorting, skewness and kurtosis (Folk and Ward values) for sediments from E-13-73 with carbonate removed. All values are in phi (ϕ) when applicable.

Station #	M_z	I	SK_I	Kg
1	1.07	0.98	0.17	0.84
7	1.84	0.98	-0.41	1.31
9	hard bottom			
10	hard bottom			
13	1.72	0.40	-0.12	1.07
14	1.12	0.62	0.00	0.96
17	1.00	0.85	-0.02	0.88
18	0.99	1.11	-0.17	0.70
21	2.41	0.46	-0.12	1.41
23	1.16	0.74	-0.15	0.99
29	2.76	0.52	-0.33	1.04
36	1.27	0.50	-0.10	1.03
38	0.51	1.02	-0.09	0.87
41	2.43	0.38	-0.11	1.36
42	1.89	0.62	-0.29	1.09
44	2.23	0.72	-0.22	1.38
46	1.83	0.45	-0.22	1.12
50	0.95	0.76	0.18	0.98
52	1.70	0.57	0.02	1.07

Table 8. Numbers of species tentatively identified by major phyla and stations for E-13-73.

Station #	Mollusca	Arthropoda (Crustacea)	Echinodermata*
1	2	5	1
7	5	6	
9	no sample		
10	no sample		
13	20	15	
14	2	5	
17	10	7	1
18	15	18	1
21	8	9	1
23	13	6	3
29	4	5	
36		19	1
38	10	17	
41			2
42	13	12	
44		15	4
46	10	7	
50			
52		6	

*Includes only Asteroida and Echinoida several species of Holothuroida and Ophiuroids are present, but have not yet been identified.

Table 9. Dissolved mercury data.

Station #	Mercury Concentrations (ng/l) September 1973
2	27
4	33
6	62
7	18
8	26
10	8
11	36
13	29
15	8
17	5
19	26
22	26
24	34
26	31
28	42
30	13
32	31
34	34
36	26
38	21
40	26
42	57
45	24
47	9
49	10
51	5
53	9
56	5
58	14
60	9
Average	23
Minimum	5
Maximum	62

APPENDIX B

Cruise E-19-73 Data

WEATHER AND RUNOFF

On 5 and 6 December a cold front passed through the area. On 7 and 8 December a low formed offshore and moved northeast along the front. On 9 and 12 December the area was influenced by a weak high moving east from Texas to Florida. On 13, 14, and 15 December a large low moved across the north central U. S. and an associated cold front moved through the study area on 14 December. On 15 December an intense low formed in Alabama and traversed the area 15, 16, and 17 December.

River flows from the three principal rivers (Altamaha, Savannah and Cooper) are summarized in the following table:

Table 1. River flow data for principal rivers. Average daily flow rates (m^3/day) are shown.

Date	Altamaha	Savannah (km^3/day)	Cooper	Total (km^3/day)
8 November	.0091	.0194	.0277	.0562
9	.0087	.0183	.0259	.0529
10	.0087	.0196	.0320	.0603
11	.0089	.0196	.0165	.0450
12	.0092	.0208	.0186	.0486
13	.0094	.0208	.0121	.0423
14	.0093	.0196	.0096	.0512
15	.0093	.0198	.0223	.0514
16	.0094	.0204	.0207	.0505
17	.0097	.0208	.0197	.0502
18	.0099	.0208	.0216	.0523
19	.0099	.0208	.0187	.0494
20	.0099	.0208	.0211	.0518
21	.0098	.203	.0177	.0478
22	.0096	.0200	.0138	.0434
23	.0093	.0201	.0158	.0452
24	.0093	.0208	.0142	.0443
25	.0098	.0210	.0067	.0375
26	.0099	.0196	.0211	.0506
27	.0095	.0203	.0229	.0527
28	.0094	.0208	.0238	.0540
29	.0097	.0203	.0273	.0573
30	.0100	.0196	.0290	.0586
1 December	.0106	.0208	.0217	.0531
2	.0114	.0208	.0264	.0586
3	.0122	.0208	.0308	.0638
4	.0128	.0209	.0290	.0627
5	.0130	.0208	.0397	.0735
6	.0126	.0203	.0375	.0704
7	.0118	.0196	.0279	.0593
8	.0118	.0209	.0338	.0665
9	.0127	.0220	.0219	.0566
10	.0136	.0245	.0407	.0788
11	.0145	.0257	.0547	.0949
12	.0152	.0270	.0481	.0903
13	.0154	.0279	.0433	.0866
14	.0153	.0304	.0409	.0866
15	.0157	.0321	.0383	.0861
16	.0164	.0338	.0360	.0862
17	.0167	.0350	.0514	.1031
18	.0172	.0360	.0606	.1138
19	.0176	.0355	.0547	.1078

HYDROGRAPHIC DATA

The following data are directly from the NODC listing. The headings indicate the following:

1. NODC: NODC identification code
2. SH: ship (EZ=EASTWARD)
3. LAT: Latitude of station
4. LON: Longitude of station
5. MSQ: Marsden Square
6. ID: Drift indicator (29=no drift)
7. MO: month (GMT)
8. DY: day (GMT)
9. HR: hour (GMT) to tenths (xx.x)
10. YEAR: year (GMT)
11. CRNO: cruise number
12. STANO: station number
13. DEPTH BOT: depth to bottom (meters) (xxxx)
14. DNP: maximum depth of samples in hundreds of meters
15. WAVE DIR: wave direction tens of degrees
16. WAVE HT: wave height in sea state units
17. WAVE P: wave period, not reported
18. WAVE S: sea amount, not reported
19. WC: weather code (WMO Code 4501)
20. CLOUD TY: cloud type (WMO Code 0500)
21. CLOUD AMT: cloud amount (WMO Code 2700)
22. NODC STANO: NODC station number
23. CASTMSG: cast messenger time (GMT) in tenths (xx.x)
24. CTYPE: OBS=observed data, STD=interpolated standard depth
25. DEPTH: depth in meters (xxxx). "T" indicates thermometric depth data
26. TEMP: temperature in ^{o}C to hundredths (xx.xx)
27. SAL: salinity in parts per thousand (xx.xx)
28. SIGMAT: sigma-t (density) to hundredths (xx.xx)
29. SPVOLAN: specific volume anomaly x 107
30. DYNDPH: $\Sigma\Delta D$, dynamic meters x 10^3
31. SVF: sound velocity
32. OXY: oxygen (ml/L) (x.xx)
33. PO4: phosphate (µg-at/L) (x.xx)
34. TOTP: total phosphate (not reported)
35. NO2: nitrite (not given)
36. NO3: nitrate (µg-at/L) (xx.x)
37. SIO4: silicate (µg-at/L) (xx.x)
38. DOC: dissolved organic carbon (mgC/L (x.xx)

Refer to NODC manual M-2 ("Processing physical and chemical data from oceanographic stations") for further information and explanation of the codes.

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312302	FZ	32373N	079475W	116	29	12	10	221	1973	019	031		0011	3	25		3	X1	8	2		0001
											25	F05	159	133	128		02					
		STD	0000	1582	3478	2564	0023603	0000	15097	594												
	221	OBS	0000	1582	3478	2564			15097	594	004			000	021	100						
		STD	0010	1603	3500	2576	0022482	0023	15108	612												
	221	OBS	0010	1603	3500	2576			15108	612	002			000	025	104						

NODC STATION DATA

NODC CAST ID	SH	LAT	LON	MSG ID	MO	DY	HR	YEAR	ORIGINATOR (RNO STAN)	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
12302	FZ	32351N	079425W	116	29	12	10	236	1973	019	002		0014	3	25		3	XI	8 2

CAST	MSG	CTYPE	DEPTH	WATER TEMP	WATER CLR	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	NO V	NO OBS	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
							25	F05	163	100	100		02							0002
		STD	0000	1662		3552		2602		0019956		0000	15130	589						
	236	OBS	0000	1662		35516		2602					15130	589	002			000	025	088
		STD	0010	1665		3553		2602		0019965		0020	15133							
	236	OBS	0014	1666		3554		2603					15134							

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STAND
						WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS								
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312302	FZ	32325N	079384W	116	29	12	11	013	1973	019	003		0016	3	25		3	X1	8	2		0003
								25	F05	163	100	100	03									
		STD	0000	1703	3570	2607	0019543	0000	15145	449												
	013	OBS	0000	1703	35705	2607			15145	449	000			000	009	072						
		STD	0010	1706	3569	2605	0019748	0020	15147													
	013	OBS	0010	1706	3569	2605			15147													
	013	OBS	0014	1706	3569	2605			15148													

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
312302	FZ	32270N	079280W		116	29	12	11	03)	1973	019	004	0020	3	27		3	XO		0	0004

	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS
	27	F05	179	100	100		03		

	CAST	MSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
			STD	0000	1972	3617	2574	0022605	0000	15227	477						
030			OBS	0000	1972	36166	2574			15227	477	000			000	005	076
			STD	0010	1975	3617	2574	0022687	0023	15230							
030			OBS	0010	1975	3617	2574			15230							
			STD	0020	1977	3617	2573	0022778	0045	15232							
030			OBS	0020	1977	3617	2573			15232							

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSC	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAN	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT		NODC STANC
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS				
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC						
312302	E7		32220N	079178W	116	29	12	11	053	1973	019	C05	0025	3	32		3	X0	0			0005	
									32	F08	190	10C	100		02								
			STD	0000	2072	3618	2549	0025044	0000	15255	557												
	053		OBS	0000	2072	36180	2549			15255	557	000			000	007	084						
			STD	0010	2072	3618	2549	0025082	0025	15256													
			STD	0020	2072	3618	2549	0025119	0050	15258													
	053		OBS	0025	2072	3618	2549			15259													

NCDC STATION DATA

NODC CC ID	SH	LAT	LON	MSC ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANO
312302	EZ	32167N	079094W	116	29	12	11	074	1973	019	C06		0052	3	25		3	X1	8 3	0006

	CAST/SG	CTYPE	DEPTH	WATER TEMP	WATER CLR	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
									25	F04	166	144	139		05					
		STD	0000	2188	3619	2518			0027983	0000		15285	544							
	074	OBS	0000	2188	3619	2518						15285	544	000				030	009	096
		STD	0010	2197	3600	2500			0029664	0029		15287								
	074	OBS	0010	2197	3600	2500						15287								
		STD	0020	2197	3598	2499			0029848	0059		15288								
	074	OBS	0020	2197	3598	2499						15288								
		STD	0030	2199	3600	2500			0029795	0088		15291								
	074	OBS	0030	2199	3600	2500						15291								
	074	OBS	0040	2201	3601	2500						15293								

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSC	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STAND
312302	F7		32143N	079043W	116	29	12	11	084	1973	019	C07	0082	3	29			5	X2	8	6	0007

		WATER CLP	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS
		29	F07	186	089	089		08		

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
		STD	0000	2235	3623	2507	0028563	0000	15297	532						
084		OBS	0000	2235	36233	2507			15297	532	000			000	036	060
		STD	0010	2243	3622	2504	0029320	0029	15301							
084		OBS	0010	2243	3622	2504			15301							
		STD	0020	2242	3622	2504	0029332	0058	15302							
084		OBS	0020	2242	3622	2504			15302							
		STD	0030	2240	3623	2506	0029243	0088	15304							
084		OBS	0030	2240	3623	2506			15304							
084		OBS	0040	2235	3626	2509			15304							
		STD	0050	2216	3625	2514	0028521	0146	15301							
084		OBS	0050	2216	3625	2514			15301							
084		OBS	0060	2168	3611	2517			15289							
		STD	0075	2092	3622	2546	0025570	0213	15273							
084		OBS	0080	2066	3634	2562			15268							

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANO
312302	EZ	32214N	080165W		117	20	12	11	190	1973	019	C20	0007	3	29		1	X0		0		0008

	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NC OBS
	29	F06	224	061	061				02

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	CXY	PO4	TOTP	NO2	NO3	SIO4	DOC
	STD	0000	1338	3364	2528	0027003	0000	15004	632						
190	OBS	0000	1338	33636	2528			15004	632	034			000	047	
190	OBS	0007	1453	3521	2625			15063							

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANC
					WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	NO OBS V									
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312302	FZ	32185N	080120W	117	20	12	11	208	1973	019	019		0009	3	29		1	X1	0	3	0009
								29	F06	220	067	061	02								
		STD	0000	1585	3575	2638	0016581	0000	15110	579											
	208	OBS	0000	1585	35752	2638			15110	579	002				000	003	088				
	208	OBS	0009	1585	3575	2638			15111												

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAN	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
						WATER CLP	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS								
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312302	FZ	32165N	080073W	117	20	12	11	215	1973	019	018		0016	3	29		3	X1	8	2		0010
						29	F05	220		093	078		02									
		STD	0000	1640	3603	2646	0015785	0000	15130	564												
	215	OBS	0000	1640	36026	2646			15130	564	000			000	002	084						
		STD	0010	1640	3603	2646	0015790	0016	15132													
	215	OBS	0010	1640	3603	2646			15132													

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANO
312302	FZ	32106N	079575W	116	29	12	11	230	1973	019	017	0021	3	29		3	X1	8	2		0011

	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS
	29	F05	220	074	067				02

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
	STD	0000	1813	3619	2617	0018574	0000	15183	553						
230	OBS	0000	1813	36189	2617			15183	553	000			000	004	096
	STD	0010	1813	3619	2617	0018608	0010	15185							
	STD	0020	1813	3619	2617	0018634	0037	15186							
230	OBS	0020	1813	3619	2617			15186							

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANO
						WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS								
312302	FZ	32053N	079475W		116	29	12	12	014	1973	019	016		0027	3	29		3	X1	8	3	0012
														29	F05	230	078	067		02		

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
	STD	0000	2085	3617	2544	0025443	0000	15258	543						
014	OBS	0000	2085	36171	2544			15258	543	000			000	008	076
	STD	0010	2087	3614	2542	0025762	0026	15260							
	STD	0020	2089	3611	2539	0026071	0052	15262							
014	OBS	0027	2091	3609	2537			15263							

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSG ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
312302	FZ	31598N	079380W		116	19	12	12	1973	019	015	0042	3	29		3		XI	8	3	0013

	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS
	29	F04	237	078	067				05

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
	STD	0000	2180	3620	2520	0027747	0000	15283	522						
028	OBS	0000	2180	36198	2520			15283	522	000			000	009	066
	STD	0010	2180	3623	2523	0027550	0028	15285							
028	OBS	0010	2180	3623	2523			15285							
	STD	0020	2176	3625	2525	0027334	0055	15286							
028	OBS	0020	2176	3625	2525			15286							
	STD	0030	2175	3626	2526	0027282	0082	15287							
028	OBS	0030	2175	3626	2526			15287							
028	OBS	0040	2175	3627	2527			15289							

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
					WATER CLR	TP	WIND DR	F/S	BAR		AIR TEMP DRY	WET	V	NO OBS								
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC					
312302	E7	31545N		079282W	116	19	12	12	044	1973	019	014		0064	3	29		4	X1	8	3			0014
									29	F04	237	078	067		07								

	STD	0000	2206	3610	2505	0029154	0000	15289	507						
044	OBS	0000	2206	36099	2505			15289	507	000			007	032	034
	STD	0010	2209	3610	2505	0029265	0029	15291							
044	OBS	0010	2209	3610	2505			15291							
	STD	0020	2210	3610	2504	0029331	0059	15293							
044	OBS	0020	2210	3610	2504			15293							
	STD	0030	2210	3612	2506	0029224	0088	15295							
044	OBS	0030	2210	3612	2506			15295							
044	OBS	0040	2209	3612	2506			15296							
	STD	0050	2208	3614	2508	0029101	0146	15298							
044	OBS	0050	2208	3614	2508			15298							
044	OBS	0060	2186	3621	2519			15295					007		

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	ONP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANO
											WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS				
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312302	F7	31514N	079232W	116	19	12	12	064	1973	019	013		0094	3	32		3	X1	8	2		0015
										32	F04	234	089	089		10						
		STD	0000	2190	3615	2514	0028346	0000	15285	474												
	064	OBS	0000	2190	36152	2514			15285	474	000			004	010	060						
		STD	0010	2192	3616	2514	0028412	0028	15287	470												
	064	OBS	0010																			
		STD	0020	2194	3616	2513	0028478	0057	15289	469												
	064	OBS	0020	2194	36159	2513			15289	469	012			000	019	084						
		STD	0030	2195	3616	2513	0028516	0085	15291	473												
	064	OBS	0030																			
	064	OBS	0040																			
		STD	0050	2196	3617	2514	0028584	0142	15295	478												
	064	OBS	0050	2196	36168	2514			15295	478	010			002	018	112						
	064	OBS	0060	2196																		
	064	OBS	0070	2196																		
		STD	0075	2197	3617	2513	0028707	0214	15299	476												
	064	OBS	0080	2198																		
	064	OBS	0094	1929	36167	2586			15231	468	000			003	009	046						

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANO
						WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	NO OBS V									
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NU2	NO3	SIO4	DOC						
312302	FZ	31488N	079184W	116	19	12	12	078	1973	019	012		02C8	3	32		3	X1	8	2		0016
									32	F04	237	100	094		06							
		STD	0000	2230	3602	2493	0030334	0000	15294	484												
	078	OBS	0000	2230	36025	2493			15294	484	009			000	018							
		STD	0010	2232	3602	2492	0030454	0030	15296	491												
		STD	0020	2234	3602	2492	0030547	0061	15298	495												
	078	OBS	0020	2234	36021	2492			15298	495	010			000	018							
		STD	0030	2235	3602	2491	0030595	0091	15300	495												
	078	OBS	T0049	2236	36024	2491			15303	496												
		STD	0050	2229	3603	2494	0030445	0153	15302	493												
		STD	0075	2058	3620	2554	0024806	0222	15263	420												
	078	OBS	T0098	1898	36255	2600			15224	377	034			086	039							
		STD	0100	1879	3625	2604	0020097	0278	15219	377												
		STD	0125	1676	3614	2646	0016207	0323	15163	371												
	078	OBS	T0147	1553	36052	2668			15127	363	077			132	065							
		STD	0150	1540	3604	2670	0013973	0361	15124	362												
	078	OBS	T0196	1464	35903	2676			15106	336	081			161	074							

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STANC
312302	F7		31444N	0790444W	116	19	12	12	117	1973	019	011	0540	3	32		3	X1	8	3		0017

	CASTMSG	CTYPE	DEPTH	WATER TEMP	WIND CLR	WIND TP	WIND DR	WIND F/S	AIR TEMP BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
									36	F04	234	083	076	09							
		STD	0000	2292	3612	2483			0031333	0000				15311	555						
117		OBS	0003	2292	36120	2483								15311	555	011			000	028	114
		STD	0010	2290	3612	2483			0031317	0031				15312	559						
		STD	0020	2285	3612	2484			0031243	0063				15312	561						
117		OBS	0020	2285	36116	2484								15312	561	008			000	017	060
		STD	0030	2275	3611	2486			0031079	0094				15311	556						
117		OBS	T0049	2260	36101	2490								15310	550	009			007	016	100
		STD	0050	2260	3610	2490			0030783	0156				15310	550						
		STD	0075	2248	361C	2494			0030534	0232				15311	554						
117		OBS	T0099	2236	36105	2497								15313	557						084
		STD	0100	2219	3610	2502			0029856	0308				15308	552						
		STD	0125	1831	3603	2600			0020592	0371				15207	443						
117		OBS	T0148	1556	35967	2661								15128	382	059			160	066	126
		STD	0150	1539	3594	2663			0014668	0415				15122	381						
117		OBS	T0135	1275	35560	2689								15038	362	109			195	104	070
		STD	0200	1178	3544	2699			0011271	0480				15005	364						
		STD	0250	0927	3513	2719			0009356	0531				14920	369						
117		OBS	T0269	0861	35047	2724								14897	371	135			236	188	116
		STD	0300	0827	3500	2725			0008830	0577				14889	361						
117		OBS	T0354	0767	34952	2731								14874	350	173			270	212	072
		STD	0400	0714	3495	2738			0007733	0660				14861	33[illegible]						
117		OBS	T0438	0669	34947	2744								14849	351	173			215	221	080

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAN	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312302	CT	31190N	073110W	116	19	12	12	189	1973	019	032		0500	3	36		3	X1	8	2		0018
										36	003	213	133	133	10							
		STD	0000	2610	3608	2384	0040767	0000	15386													
139		OBS	0000	2610	36078	2394			15386		007			000	019	108						
		STD	0010	2612	3608	2383	0040845	0041	15388													
		STD	0020	2613	3608	2383	0040914	0082	15390													
189		OBS	0020	2613	36082	2383			15390		013			000	018	198						
		STD	0030	2612	3608	2383	0040946	0123	15391													
139		OBS	T0049	2611	36078	2383			15394		003			000	015	100						
		STD	0050	2611	3608	2384	0040974	0205	15394													
189		OBS	T0074	2609	36175	2391			15399							092						
		STD	0075	2605	3620	2394	0040977	0306	15398													
139		OBS	T0093	2482	36563	2460			15378		017			012	020	096						
		STD	0100	2473	3656	2462	0033658	0398	15376													
		STD	0125	2257	3659	2526	0027722	0475	15330													
139		OBS	T0148	2096	36623	2576			15290		014			030	011	080						
		STD	0150	2081	3662	2579	0022683	0538	15287													
189		OBS	T0135	1857	36506	2630			15230					050		080						
		STD	0200	1815	3644	2635	0017542	0638	15219													
		STD	0250	1675	3621	2652	0016067	0722	15183													
139		OBS	T0269	1621	36126	2658			15169		063			123	047	072						
		STD	0300	1562	3605	2666	0014853	0800	15155													
139		OBS	T0354	1377	35794	2686			15102		070			157	070	088						
		STD	0400	1138	3543	2706	0011104	0929	15024													
189		OBS	T0434	0885	35050	2720			14934		125			272	179	092						

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NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRUISE	STAT	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	CLOUD WC	TY	AMT	NODC STAN
				WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS									
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC				
312302	ST	31255N	079197W	116	19	12	12	223	1973	019	031		0454	3	36		3	XI	R	3	0019
								36	F03	207	128	128	09								
		STD	0000	2614	3605	2390	0041086	0000	15386	492										
	223	OBS	0000	2614	36050	2380			15386	492	005			030	017	064				
	223	OBS	0003	2613	36051	2381			15388	500	007			000	018	092				
		ST	0010	2613	3605	2381	0041130	0041	15388	499										
	223	OBS	0013	2613	36046	2380			15389	492	006			000	020	090				
		STD	0020	2613	3605	2380	0041158	0082	15389	493										
		STD	0030	2613	3605	2380	0041210	0123	15391	499										
	223	OBS	T0041	2613	36045	2380			15393	502	004			000	017	094				
		STD	0050	2613	3621	2393	0040131	0205	15396	498										
		STD	0075	2614	3650	2415	0038125	0303	15404	486										
	223	OBS	T0087	2614	36555	2418			15406	480	005			000	016	212				
		STD	0100	2463	3646	2458	0034065	0393	15372	449										
		STD	0125	2208	3628	2518	0028401	0471	15312	402										
	223	OBS	T0133	2136	36211	2533			15294	391	032			047	027	208				
		STD	0150	2056	3607	2544	0025997	0539	15273	390										
		STD	0200	1800	3559	2574	0023289	0662	15205	336										
	223	OBS	T0226	1656	35311	2587			15163	334	064			098	046	064				
		STD	0250	1477						359										
		STD	0300	1170						323										
	223	OBS	T0329	1072						314	1[illegible]			222	138	104				
		STD	0400	0823						315										
	223	OBS	T0417	0300						315	174			233	205	108				

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	CLOUD WC	FY	AMT	NODC STANO
312302	57	31290N	079312W	116	19	12	13	025	1973	019	030		0340	3	04		2	X1	8	2				0020

			WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS
			04	F02	196	133	128				10

CAST	MSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
		STD	0000	2579	3604	2390	0040149	0000	15378	505						
025		OBS	0000	2579	36036	2390			15378	505	007			000	018	100
		STD	0010	2578	3603	2390	0040162	0040	15380	496						
025		OBS	0019	2577	36034	2391			15381	490	009			000	018	108
		STD	0020	2576	3603	2391	0040149	0080	15381	489						
		STD	0030	2561	3604	2396	0039717	0120	15379	481						
025		OBS	T0048	2520	36054	2410			15373	490	007			000	018	136
		STD	0050	2514	3606	2412	0038269	0198	15371	484						
025		OBS	T0071	2440	36086	2436			15358	505	007			000	047	104
		STD	0075	2430	3609	2440	0035721	0291	15356	497						
025		OBS	T0095	2344	36100	2466			15339	473	009			003	019	126
		STD	0100	2300	3612	2480	0031978	0375	15329	479						
		STD	0125	2076	3619	2549	0025519	0447	15276	509						
025		OBS	T0143	1912	36250	2596			15235	530	048				055	064
		STD	0150	1847	3621	2610	0019769	0504	15218	508						
025		OBS	T0190	1471	35870	2672			15106	397	095			160	085	096
		STD	0200	1341	3569	2686	0012556	0585	15064	367						
025		OBS	T0238	1006	35227	2714			14948	295						080
		STD	0250	0994	3521	2714	0003849	0641	14945	296						
025		OBS	T0294	0938	35142	2719			14929	297	175			257	206	056
		STD	0300	0900	3510	2722	0009227	0688	14918	300						
025		OBS	T0332	0804	35006	2729			14885	310	157			222	177	104

NODC STATION DATA

NODC CC I	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR (PMO STAND)	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
				WATER CLR	TP	DP	WIND F/S	BAR	AIR TEMP DRY	WET	V	NO OBS							
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	P04	TOTP	NO2	NO3	SI04	DOC			
312302	EZ	31297N	079356W	116	19	12	13	046	1973	019	023	0183	3	04		2	XX	0	0321
				22	F01	183	133	128	07										
		STD	0000	2372	3612	2459	0033585	0000	15330	493									
046		OBS	0000	2372	36117	2459			15330	493	000			000	024	064			
		STD	0010	2372	3614	2461	0033434	0034	15332	475									
		STD	0020	2372	3615	2462	0033374	0067	15334	465									
046		OBS	0020	2372	36157	2462			15334	465	002			000	009	060			
		STD	0030	2362	3615	2464	0033187	0100	15333	482									
		STD	0050	2342	3613	2468	0032884	0166	15331	487									
046		OBS	T0050	2342	36125	2468			15331	487	004			007	010	046			
		STD	0075	2188	3608	2509	0029096	0244	15296	440									
046		OBS	T0075	2188	36080	2509			15296	440	023			023	040	094			
		STD	0100	2101	3597	2525	0027676	0315	15276	451									
046		OBS	T0100	2101	35972	2525			15276	451	025			028	035	108			
		STD	0125	1800	3605	2609	0019720	0374	15198	391									
		STD	0150	1608	3606	2656	0015335	0418	15145	319									
046		OBS	T0150	1608	36059	2656			15145	319	081			121	072	060			
046		OBS	T0180	1522	35975	2669			15122	217									

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUISE	ORIGINATOR STATION	DEPTH BOT	DEPTH DNP	WAVE OBS DIR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD °C	CLOUD TY	CLOUD AMT	NODC STATION
312302	EZ	31314N	079412W	116	19	12	13	058	1973	019	028	0082	3	18		3	X1	8	2		0022

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
				WATER CLR	TP	DP	WIND F/S	RAF	AIR TEMP DRY	WET	V	NO OBS				
				19	F04	165	167	167		04						
		STD	0000	2322	3610	2472	0032332	0000	15318	500						
058		035	0001	2322	36097	2472			15318	500	000			000	018	056
		STD	0010	2325	3610	2471	0032453	0032	15320	500						
		STD	0020	2329	3610	2470	0032574	0065	15323	500						
058		035	0020	2329	36101	2470			15323	500	006			000	018	092
		STD	0030	2273	3605	2482	0031459	0097	15310	459						
		STD	0050	2185	3596	2501	0029762	0158	15290	402						
058		035	0050	2185	35964	2501			15290	402	017			017	021	050
		STD	0075	2119	3590	2515	0028545	0231	15276	383						
058		035	0070	2112	35899	2516			15275	379	042			019	039	064

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STANO
312302		FZ	31363N	079530W	116	19	12	13	081	1973	019	027	0039	3	10		3	X2	8	8		0023

	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS
	22	F03	173	167	167				03

CASTNSQ	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
	STD	0000	1936	3566	2545	0025371	0000	15211	525						
081	OBS	0000	1936	35662	2545			15211	525						068
	STD	0010	1936	3566	2545	0025406	0025	15213	526						
	STD	0020	1937	3566	2545	0025451	0051	15215	528						
081	OBS	0020	1937	35664	2545			15215	528	013			000	028	112
	STD	0030	1935	3566	2546	0025441	0076	15216	531						
081	OBS	0039	1932	35662	2546			15217	534	007			000	009	120

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLP	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312312	EI		31404N	0300274	117	10	12	13	107	1973	019	026	0037	3	22		2	X1	8	2		0024
											22	F03	149	172	167	03						
			STD	0000	1846	3580	2579	0022170	0000	15188	544											
	107		DBS	0000	1846	35802	2579			15188	544	007			000	009	092					
			STD	0010	1950	3581	2579	0022223	0022	15191	542											
			STD	0020	1850	3582	2579	0022185	0044	15192	540											
	107		DBS	0020	1850	35823	2579			15192	540	007			000	008	116					
			STD	0030	1846	3590	2586	0021577	0066	15194	537											
	107		DBS	0047	1841	35978	2594			15194	535	007			000	009	104					

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRUJ	ORIGINATOR STAN	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
312302	7	31446N	080126W	117	10	12	13	122	1973	019	025		0027	3	22		3	X1	9 3	0025

	CAST	MSG	CTYPE	DEPTH	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
								22	F04	146	172	167	03								
			STD	0000		1812	3620		2618	0018474	0000			15183	543						
	122		OBS	0000		1812	36200		2618					15183	543	004			000	008	072
			STD	0010		1816	3620		2617	0019591	0019			15186	549						
	122		OBS	0010		1816	36203		2617					15186	549	004			000	008	064
			STD	0020		1815	3620		2617	0018598	0037			15187	545						
	122		OBS	0025		1815	36203		2617					15188	540	005			000	008	076

NODC STATION DATA

NODC
CC ID SQ LAT LON SEQ ID MO DY HR YEAR ORIGINATOR DEPTH WAVE OBS CLOUD NODC
BOT DNP DR HT P S AC TY AMT STAND

WATER WIND AIR TEMP NO
CUR TP DR F/S BAR DRY WET V OBS

CASTMSG STYPE DEPTH TEMP SAL SIGMAT SPVOLAN DYNDPH SVF OXY P04 TOTP NO3 SI04 DOC

31302 [illegible] 31493N 0002254 117 10 12 13 140 1973 019 024 0019 3 22 3 X1 A 5 0026

22 F04 139 178 172 01

STD 0000 1696 3580 2616 0018673 0000 15144 550
140 DBS 0009 1696 35803 2616 15144 550 008 000 010 104

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
312302	57		31535N	080340W	117	10	12	13	164	1973	019	023	0016	3	22		3	X1	8	5		0027

	WATER CLP	WIND TP	DP	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS
	22	F05	125	178	183				01

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
		STD	0000	1586	3496	2577	0022352	0000	15100	561						
	144	085	0000	1586	34963	2577			15100	561	020			000	008	088

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STANO	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STANO
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP		SAL		SIGMAT		SPVOLAN	DYNDPH	SVF		OXY	PO4		TOTP	VO2	NO3		SIO4	DOC
312302	FZ		31557N	080409W	117	10	12	13	173	1973	019	022	0015	3	22		3		X1	P	5		0028
								22	F05	108	189	183	01										
			STD	0000	1508										580								
	173		225	0000	1508										580	014				000		026	104

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSG	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
					WATER CLR	WATER TP	WIND DR	WIND F/S	BAR		AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS								
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312302	CF	31567N	080415W	117	10	12	13	185	1973	019	021	0014	3	22	4	X1	8	6			0029	
							22	F05		183	183	01										
		STD	0000	1484	3372	2504	0329299	0000	15053	589												
	185	DBS	0000	1484	33719	2504			15053	589	016				000	019	140					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	SQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRD	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	CLOUD WC	TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	S/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC						
312302	F7	31295N	08102W	117	11	12	14	009	1973	019	043		0009	3	20		3	X1	8	6		0030
								20	F05	061	172	167		01								
		STD	0000		1470	3358	2496		0330016	0000		15047	587								
	009	035	0300		1470	33581	2496					15047	587	023					000	020	126	

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STANO	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STANO
											WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS				
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312302	EZ	31117N	081054W	117	11	12	14	048	1973	019	436		0012	3	20		3	X1	8	6		0031
								20	F04	058	172	167		01								
		STD	0000	1626	3452	2534	0026459	0000		15107	569											
	048	DBS	0000	1626	34520	2534				15107	569	013							000	000	146	

NODC STATION DATA

NODC CC	ID	S4	LAT	LON	ASD	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLP	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	EASTING	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC						
312302	E7	30550N	081110W	117	01	12	14	076	1973	019	045		0009	3	20		3	X1	B	5		0032
								20	E04	075	172	172		01								
		STD	0030	1626	3444	2527	0027067	0000	15106													
	076	E3S	0000	1626	34437	2527			15106		020			000	068	130						

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNJ	STAN	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	CLOUD WC	TY	AMT	NODC STAN
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	EASTMSG		STYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312303	E7	303874	0811374	117	01	12	14	104	1973	019	458		0016	3	20		4	X1	8	5		0033
									20	E04	085	172	147		01							
			???	0000		1768	3495	2533		0026550	0000		15155	544								
	104		085	0000		1763	34947	2533					15155	544	015				000	020	103	

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	SQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUD	STAT	DEPTH BOT	DNP	WAVE OBS DR	AT	P	S	WC	CLOUD TY	ANT	NODC STAN

											WATER CLR	TP	WIND DR	SPD	AIR TEMP WAT	DRY	WET	V	NO OBS			

	DATE/SEC	CRUISE	STATION	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	SI02	NO3	SI04	DOC
	31230 17	30238N	0211542	117 01 12 14	125	1973	019	054	0016	3	20		3	X1	8	3						0234

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTNO		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
212302	17		302144	0P1035W	117	01	12	14	147	1973	019	063		0025	3	20		3	X1	8	3	0035
								29	F03	129	172	167		01								
			STD	0000	2028	3631	2571	0022941	0000	15244	522											
	147		OBS	0000	2028	36315	2571			15244	522	009			000	019	160					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLP	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC						
312302	FF	30203N	080522W	117	00	12	14	162	1973	019	062		0026	3	20		3	X1	3	3		0036
									29	F03	125	172	167		02							
		STD	0000	2135	3620	2533	0026559	0000	15271	590												
	162	OBS	0000	2135	36197	2533			15271	590	002			000	009	126						
		STD	0010	2135	3621	2533	0026552	0027	15273	568												
		STD	0020	2136	3621	2534	0026544	0053	15275	545												
	162	OBS	0026	2136	36213	2534			15276	532	004			000	001	120						

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAID	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
312302	57	301814	0804100	117	00	12	14	176	1973	019	051	0035	3	20		3	X1	8	2		0037

			WATER CLR	WATER TP	WIND DR	WIND S/S	BAR	AIR TEMP DRY	AIR TEMP WET	NO V OBS
			29	F03	115	139	189		02	

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
		STD	0000	2168	3618	2522	0027539	0000	15230	520						
	176	BBS	0000	2168	36182	2522			15280	520	005			000	025	108
		STD	0010	2170	3613	2522	0027631	0028	15232	519						
		STD	0020	2171	3618	2521	0027715	0055	15284	519						
		STD	0030	2173	3618	2521	0027808	0083	15285	518						
	176	BBS	0035	2174	36180	2521			15287	519	010			000	024	100

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	S/S	SAL	AIR TEMP DRY	WET	V	NO OBS			
		CASTNSQ		CTYPE	DEPTH	TEMP		SAL		SIGMAT	SPVOLAN	DYNDPH	SVF		OXY	PO4	TOTP	NO2	NO3	SI04	DOC	
312302	FZ	301654		080300W		117	00	12	14	191	1973	213	069		0036	3	20		3	X1	3	2	0038
											29	F03	112	211	200		02					
				STD	0000	2376		3610		2456	0033840	0000	15331		497							
		191		OBS	0000	2376		36097		2456			15331		497	004			000		017	096
				STD	0010	2377		3609		2456	0033907	0034	15333		501							
				STD	0020	2377		3609		2456	0033953	0068	15334		506							
				STD	0030	2378		3609		2455	0034059	0102	15336		510							
		191		OBS	0035	2378		36089		2455			15337		512	013			000		014	076

NODC STATION DATA

NODC EC ID	SQ	LAT	LON	ASD	ID	MO	DY	HR	YEAR	ORIGINATOR CRUISE	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
														WATER CLR	TP	WIND DR	S/S	BAR	AIR TEMP DRY	WET	V	OBS
	CASTNO	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
212332	7	301520	0801426	117	00	12	14	212	1973	019	C59		0043	3	20		2	X3		3			0039
								29	F03	112	139	189		02									
		STD	0000	2401	3608	2448	0134656	0000		15337	480												
	212	305	0000	2401	36030	2448				15337	480	009						030	052	032			
		STD	0010	2366	3609	2459	0133625	0034		15330	473												
		STD	0020	2331	3610	2470	0132601	0067		15323	466												
		STD	0030	2296	3612	2481	0131577	0099		15316	459												
	212	305	0041	2257	36130	2493				15309	451	022						034	060	092			

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
312302	57		301457	0801304	117	00	12	14	224	1973	019	058	0110	3	20		3	X0	0			0340

	CASTMSG	CTYPE	DEPTH	WATER TEMP	WATER SAL	WATER SIGMAT	WATER SPVOLAN	WIND DYNDPH	WIND SVE	AIR TEMP DRY	AIR TEMP WET	NO OBS V	OXY	P04	TOTP	N02	N03	SI04	DOC
				29	503	119	189	183		06									
		STD	0000	2454	36068	2431	0036284	0000	15349	505									
224		OBS	0000	2454	36065	2431			15349	505	003				000	016	116		
		STD	0010	2445	3606	2433	0036061	0036	15349	501									
		STD	0020	2435	3606	2436	0035819	0072	15348	497									
224		OBS	0020	2435	36065	2436			15348	497	005				000	027	080		
		STD	0030	2424	3607	2440	0035486	0108	15347	488									
224		OBS	0043	2413	36080	2444			15346	487	005				000	018	088		
		STD	0050	2403	3609	2448	0034856	0179	15346	507									
		STD	0075	2377	3610	2457	0034110	0264	15344	556									
224		OBS	00778	2374	36107	2458			15343	542	011				003	031	089		
224		OBS	00998	2071	36132	2549			15270	487	038				055	046	126		
		STD	0100	2041	3619	2558	0024553	0338	15263	468									
224		OBS	01007	1938	36218	2587			15236	385	047				076	080	092		

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRUD	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND

	CASTNSQ	CTYPE	DEPTH	WATER TEMP	WATER CLR	WATER SAL	WATER SIGMAT	WATER SPVOLAN	WATER DYNDPH	WIND DR	WIND S/S	AIR TEMP DRY	AIR TEMP WET	NO V. OBS	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
312302	EZ	301413	C8D0W1W	117	00	12	15	009	1973	019	057		0278	3	27		2	XO	0		0041

00 E00 122 194 189 08

		STD	0000	2561	3595	2393	0039903	0000	15374												
005		BBS	0000	2561	35995	2393			15374			002					000	009	064		
		STD	0010	2563	3600	2392	0039930	0040	15376												
010		BBS	T0013	2564	36000	2392			15377	474	007							078	108		
		STD	0020	2558	3600	2394	0039849	0080	15376	457											
		STD	0030	2528	3601	2404	0039961	0119	15371	391											
009		BBS	T0046	2489	36025	2417			15365	358	003						000	016	050		
		STD	0050	2486	3603	2418	0037650	0196	15365	389											
005		BBS	T0071	2450	36071	2432			15360	487	004							047	076		
		STD	0075	2448	3608	2434	0036295	0288	15360	487											
009		BBS	T0094	2372	36117	2459			15346	474	007						000	021	046		
		STD	0100	2281	3611	2485	0031504	0373	15324	457											
		STD	0125	1518	3607	2581	0022452	0441	15232	395											
009		BBS	T0161	1702	36039	2632			15172	363	043						108	043	030		
		STD	0150	1548	3589	2652	0015695	0488	15131	347											
006		BBS	T0188	1139	35355	2703			14389	301	122						222	118	036		
		STD	0200	1106	3535	2705	0010640	0554	14379	301											
		STD	0250	0978	3516	2715	0003810	0605	14936	302											
009		BBS	T0263	0934	35110	2717			14924	302	150						269	159	054		

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	CLOUD WC	TY	AMT	NODC STAND
312302	EZ	30130N	079542W	116	09	12	15	033	1973	019	056		0544	3	27		2	X0		0042

	WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS
	32	F02	142	194	189				10

CAST	MSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
		STD	0000	2616	3603	2382	0040913	0000	15387	381						
033		OBS	0000	2616	36083	2382			15387	381	004			000	017	046
		STD	0010	2618	3608	2382	0041009	0041	15389	398						
		STD	0020	2619	3608	2381	0041087	0082	15391	415						
		STD	0030	2619	3608	2381	0041164	0123	15393	431						
033		OBS	T0047	2620	36078	2380			15396	460	002			000	017	056
		STD	0050	2620	3608	2381	0041245	0206	15396	427						
033		OBS	T0070	2619	36084	2381			15399	323	000			000	013	050
		STD	0075	2616	3609	2383	0041150	0309	15400	367						
033		OBS	T0093	2607	36190	2393			15402	458	004			000	016	046
		STD	0100	2588	3628	2406	0040061	0409	15399	438						
033		OBS	T0117	2528	36464	2438			15390	409	009			012	012	040
		STD	0125	2492	3653	2454	0034570	0501	15384	410						
033		OBS	T0140	2416	36623	2484			15370	412	013			016	016	034
		STD	0150	2348	3666	2507	0029592	0581	15355	400						
033		OBS	T0187	2096	36685	2581			15297	363	009			051	022	026
		STD	0200	1998	3655	2597	0021222	0708	15272	363						
		STD	0250	1647	3609	2649	0016230	0802	15174	354						
033		OBS	T0285	1424	35824	2675			15106	340	091			160	075	108
		STD	0300	1332	3574	2691	0012325	0873	15078	328						
033		OBS	T0336	1132	35516	2714			15013	308	100			215	113	108
		STD	0400	0845	3510	2730	0008563	0978	14913	306						
033		OBS	T0421	0770	34957	2730			14886	305	175			273	204	150

NODC STATION DATA

NODC CC ID	SM	LAT	LON	ASG ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
									WATER CLR	TP	WIND DR	F/S	AIR TEMP DRY	WET	V	NO OBS				
	CASTNSQ	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC				
312302	FP	30101N	079446W	116	07	12	15	058	1973	019	055	0823	3	32		3	X0	0		0043
				29	F03	146	206	200			10									
		ST	0000	2561	3618	2407	0038557	0000	15376	478										
	358	CBS	0000	2561	36183	2407			15376	478	007				000	016				
		STD	0010	2558	3618	2408	0038516	0039	15377	484										
		STD	0020	2556	3619	2409	0038466	0077	15378	490										
		STD	0030	2553	3619	2409	0038417	0115	15379	493										
	358	CBS	T0048	2549	36196	2411			15381	496	004				000	014				
		STD	0050	2546	3620	2412	0038235	0192	15381	495										
		STD	0075	2520	3621	2422	0037427	0287	15379	485										
	358	CBS	T0096	2504	36233	2428			15379	481	006				000	040				
		STD	0100	2502	3623	2429	0036873	0380	15379	481										
	358	CBS	T0121	2493	36263	2434			15381	481	004				000	014				
		STD	0125	2489	3628	2436	0036274	0471	15381	497										
	358	CBS	T0145	2424	36346	2461			15369	511	003				000	017				
		STD	0150	2381	3644	2481	0032124	0557	15361	474										
	358	CBS	T0169	2251	36726	2540			15335	382	022				043	016				
	358	CBS	T0193	2162						372	024				044	021				
		STD	0200	2125	3664	2569	0023876	0697	15307	373										
		STD	0250	1883	3647	2620	0019128	0804	15247	380										
	358	CBS	T0288	1728	36316	2647			15207	386	049				070	038				
		STD	0300	1693	3626	2651	0016232	0893	15138	379										
	358	CBS	T0384	1448	35854	2676			15131	336	095				159	076				
		STD	0400	1401	3578	2680	0013632	1042	15117	339										
		STD	0500	1112	3534	2704	0011545	1163	15030	304										
	358	CBS	T0527	1034	35225	2709			15005	301					245	148				

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STANO	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
									WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSC	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC				
412302	57	303754	079360W	116	09	12	15	099	1973	019	054	0742	3	27	2	XI	8	2		0044
									22	F02	146	200	194	10						
		STD	0000	2573	3620	2404	0038803	0000	15379	473										
099		085	0000	2573	36198	2404			15379	473	007			000	012	108				
		STD	0010	2574	3621	2405	0038780	0039	15381	472										
		STD	0020	2575	3622	2405	0038776	0078	15383	471										
		STD	0030	2575	3623	2406	0038780	0116	15384	470										
099		085	T0048	2577	36233	2406			15388	469	006			000	011	064				
		STD	0050	2576	3623	2406	0038863	0194	15388	469										
		STD	0075	2568	3622	2407	0038802	0291	15390	467										
099		085	T0097	2560	36208	2409			15392	466	006			000	014	056				
		STD	0100	2556	3622	2411	0038553	0388	15391	473										
099		085	T0121	2492	36287	2436			15381	478	006			000	011	056				
		STD	0125	2466	3638	2451	0034856	0480	15376	455										
099		085	T0145	2345	36707	2512			15354	389	019			028	016	108				
		STD	0150	2316	3672	2521	0023232	0558	15348	391										
099		085	T0170	2211	36744	2553			15325	399	021			041	015	088				
099		085	T0194	2105	36727	2581			15301		025			049	019	092				
		STD	0200	2081	3672	2587	0022166	0685	15296											
		STD	0250	1879	3657	2629	0018297	0786	15247											
099		085	T0291	1706	36373	2657			15202		028			056	025	072				
		STD	0300	1657	3629	2662	0015231	0870	15187											
099		085	T0387	1273	35642	2696			15071		107			148	090	080				
		STD	0400	1230	3557	2699	0011791	1005	15058											
		STD	0500	1021	3524	2712	0010650	1117	14997											
095		085	T0532	1001	35215	2714			14994		158			216	151	116				

NODC STATION DATA

NODC CC	ID	SH	LAT	LEN	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STANC	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STANC
312302	FZ	30398N	079475W		116	09	12	15	131	1973	019	C53	0486	3	27		2		X1	9	7	0045

			WATER CLR	TP	WIND DR	S/S	BAR	AIR TEMP DRY	WET	V	NO OBS
			00	F00	152	20C	194				10

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
	STD	0000	2605	3604	2383	0040858	0000	15394	471						
131	OBS	0000	2605	36045	2383			15384	471	007			000	015	084
	STD	0010	2608	3605	2382	0040981	0041	15387	465						
131	OBS	0010	2608	36046	2382			15387	465	012			000	016	080
	STD	0020	2602	3604	2383	0040877	0082	15387	460						
131	OBS	0020	2602	36041	2383			15387	460	007			000	015	100
	STD	0030	2602	3603	2382	0041009	0123	15388	465						
131	OBS	T0049	2601	36015	2382			15391	473	007			000	017	136
	STD	0050	2601	3602	2382	0041146	0205	15391	473						
	STD	0075	2597	3603	2384	0041021	0308	15395	476						
131	OBS	T0098	2594	36049	2386			15398	478	007			000	016	030
	STD	0100	2588	3608	2391	0040487	0410	15397	474						
	STD	0125	2509	3641	2440	0035914	0505	15387	432						
131	OBS	T0148	2436	36572	2474			15375		013			022	016	108
	STD	0150	2413	3657	2481	0032066	0590	15370	398						
131	OBS	T0184	2053	36565	2583			15284	363	040			053	030	174
	STD	0200	1923	3643	2607	0020217	0721	15250	358						
	STD	0250	1547	3599	2664	0014827	0808	15142	339						
131	OBS	T0257	1498	35924	2671			15127	336	088			132	075	156
	STD	0300	1206	3550	2699	0011573	0874	15032	316						
131	OBS	T0322	1089	35339	2708			14993	304	104			203	116	064
	STD	0400	0855	3504	2724	0009155	0978	14916							
131	OBS	T0403	0852	35039	2724			14916		164			285	186	060

NODC STATION DATA

NODC CC ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STANO	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STANO
312302	FZ	30435N	079580W	116	09	12	15	158	1973	019	C52	0255	3	27		2	X2	8	7		0046

	CASTMSG	CTYPE	DEPTH	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
									23	FOI	156	200	194	09						
		STD	0000	2546	3599	2397			0039512	0000		15370								
	158	OBS	0000	2546	35993	2397						15370		021				000	018	092
		STD	0010	2542	3599	2398			0039444	0039		15371								
		STD	0020	2538	3599	2399			0039357	0079		15372								
		STD	0030	2535	3599	2401			0039252	0118		15372								
		STD	0050	2527	3601	2404			0039006	0196		15374								
	158	OBS	0050	2527	36010	2404						15374		007				000	016	084
		STD	0075	2477	3604	2422			0037423	0292		15367								
	158	OBS	0075	2477	36041	2422						15367		009				000	016	088
		STD	0100	2411	3608	2445			0035439	0383		15356								
	158	OBS	0100	2411	36081	2445						15356		009				000	017	092
		STD	0125	2290	3657	2517			0028514	0463		15336								
	158	OBS	0125	2290	36572	2517						15336		022				019	026	072
		STD	0150	1564	3628	2483			0012725	0514		15134								
	158	OBS	0150	1564										060				124	057	108
		STD	0200	1360	3573	2685			0012643	0578		15070								
	158	OBS	0200	1360	35729	2685						15070		124				180	094	072
	158	OBS	0225	1158	35464	2705						15003		129				154	110	088
		STD	0250	0903																
	158	OBS	0253	0503										164				254	167	108

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND

	CASTMSG	CTYPE	DEPTH	WATER CLP TEMP	WATER CLP SAL	WATER CLP SIGMAT	WIND TP DR F/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
312302	FZ	304154	0800578	117	00	12	15	183	1973	019	051		0096	3	27		3	X2	8	8		0047
									20	F04	125		194	194		04						
		STD	0000	2474	3605	2423			0036993	0000	15354								
	182	STD	0000	2474	36047	2423					15354		037				030	017	072
		STD	0010	2471	3604	2423			0037006	0037	15355								
		STD	0020	2463	3604	2424			0036965	0074	15356								
	183	STD	0020	2468	36038	2424					15356		009				002	020	090
		STD	0040	2451	3605	2431			0036396	0111	15353								
		STD	0050	2398	3603	2449			0034775	0182	15344								
	193	STD	0050	2398	36041	2449					15344		013				030	019	100
		STD	0075	2298	3611	2480			0031830	0265	15324								
	184	STD	0095	2191	36121	2511					15301		036				041	034	060

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
212302	E7		30425N	080110W	117	00	12	15	196	1973	019	050	0045	3	20		3	X2	8	8		0048
									20	F04	125	194	194	02								
			STD	0000	2370	3611	2459	0033603	0000	15330												
	196		OBS	0000	2370	36106	2459			15330		009			000	024	076					
			STD	0010	2356	3611	2463	0033216	0033	15328												
			STD	0020	2341	3611	2468	0032829	0066	15326												
			STD	0030	2327	3612	2472	0032450	0099	15324												
	196		OBS	0042	2310	36121	2477			15322		022			016	026	088					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	SQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTNO		TYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC					
312302	57	30410N	080280W		117	00	12	15	224	1973	019	049		0034	3	22		3	X1	8	6		0049
									22	F04	122	222	217		01								
			STD	0000	2140	3620	2532	0026631	0000	15273													
	224		OBS	0000	2140	36205	2532			15273		010				000	023	136					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	ASO	ID	MO	DY	HR	YEAR	ORIGINATOR CRNG	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
									WATER CLP	TP	DP	WIND F/S	BAR	AIR TEMP DRY	WET	V	NO OBS					
	CASTNSQ		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312302	E7		30492N	0E0449W	117	00	12	16	003	1973	C19	C48	0030	3	20		3	X2	5	8		0050
								20	E04	119	211	206	01									
			STD	0000	1996	3628	2577	0022361	0000	15235												
	033		08S	0000	1996	36283	2577			15235		010			000	034	076					

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
31	2302	F7	30510N	080550W	117	00	12	16	015	1973	019	047	0020	3	29		2		X1	8	3	0051

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
				29	F03		194	183	01							
		STD	0000	1854	3561	2562	0023775	0000	15188							
	015	OBS	0000	1854	35607	2562			15188		017			000	006	140

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DEPTH DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	CLOUD WC	CLOUD TY	CLOUD AMT	NODC STAND
312302	EZ	30538N	081067W		117	01	12	16	023	1973	019	046	0014	3	29		2		X1	8	3	0052

	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS
	29	F03	119	194	183				01

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
		STD	0000	1754	3479	2524	0027357	0000	15149							
	023	OBS	0000	1754	34791	2524			15149		017			000	021	146

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STANC
312302		31106N	081C20W		117	11	12	16	055	1973	019	42P	0015	3	22		2	X2	8	8		0053

	WATER CLR	WATER TP	WIND DR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS
						29	F01	112	161	161	01

CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
	STD	0000	1670	3457	2527	0027C76	0000	15121							
055	OBS	0000	1670	34568	2527			15121		019			000	008	160

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRUISE NO	ORIGINATOR STATION NO	DEPTH OF BOTTOM	DNP	WAVE OBS DIR	WAVE OBS HT	WAVE OBS PER	WAVE OBS SWELL	WC	CLOUD TYPE	CLOUD AMT	NODC STATION NO

WATER CLR	WATER TP	WIND DIR	WIND F/S	BAR	AIR TEMP DRY	AIR TEMP WET	V	NO OBS

CASTMSG	CTYP	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC
312302	EZ	31275N	2505?5W	117	10 12	16 078	1973	019	042	0014	3	09	3	X2	8 8				0054
							34	F01	105	156	156	01							
		STD	0000	1590	3459	2548	0025135	0000	15097										
078		OBS	0000	1590	34594	2543			15097		019			000	000	150			

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	ASQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	DP	WIND F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTYSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	V12	NO3	SIO4	DOC					
312302	EZ	31257N	0P0525W	117	10	12	16	085	1973	019	041		0024	3	09		2	X6	8	8		0055
								34	E01	091	156	155		01								
			STD	0000	1681	3485	2546	0025280	C000	15128												
	085		OBS	0000	1681	34849	2546			15128		018				000	006	120				

NODC STATION DATA

NODC CC	TD	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	ORIGINATOR STAN	DEPTH BOT	DNP	WAVE OBS DR	WAVE OBS HT	WAVE OBS P	WAVE OBS S	WC	CLOUD TY	CLOUD AMT	NODC STANO
312302	FZ	31217N	080410W	117	10	12	16	104	1973	019	C40		0019	3	27		2		X6	5	8	0056

	WATER CLR	WIND TP	WIND DR	WIND F/S	AIR TEMP BAR	AIR TEMP DRY	AIR TEMP WET	AIR TEMP V	NO OBS
				34	F02	091	150	144	01

	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SI04	DOC
		STD	0000	1747	3409	2472	0032323	0000	15138							
	104	OBS	0003	1747	34087	2472			15139		018			003	019	136

NODC STATION DATA

NODC CC ID SH	LAT	LON	NOD ID SD DY HR YEAR (GMO STAND)	ORIGINATOR DEPTH BOT	DNP	WAVE OBS DR HT P S	CLOUD WC TY AMT	NODC STAND
			WATER WIND AIR TEMP ND CLR TP DR F/S BAR DRY WET V OBS					
CASTMSC	CTYPE	DEPTH	TEMP SAL SIGMAT SPVOLAN DYNDPH SVF	OXY PO4 TOTP NO2 NO3				SIO4 DOC
312302 F7	31175N	0803028	117 10 12 16 119 1973 019 039	0025 3 27		3 X2 5 8		0057
			32 F02 915 150 144 01					
	STD	0000	1914 3561 2547 0025226 0000	15205				
119	ORS	0000	1914 3560B 2547	15205		007	000 009	146

NODC STATION DATA

NODC CC	ID	SH LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRNO	STAND	DEPTH BOT	ONP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
						WATER CLR	TP	WIND DR	E/S	BAR	AIR TEMP DRY	WET	V	NO OBS								
	CASTMSG	CTYPE	DEPTH	TEMP		SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC				
312302	EZ	31122N	0801504	117	10	12	16	141	1973	019	038		0036	3	32		3	X6	5	8	0058
								32	F02	081	150	144		01							
		STD	0000	2193		3639	2508		0328873	0000	15285										
	141	OBS	0000	2193		36090	2508				15285		005			000	011	092			

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	WSO ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
										WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312302	EZ	31065N	079590W	116	19	12	16	160	1973	019	037		0047	3	18		3	X6	5	2	0059
								32	F02	064	150	144		03							
		STD	0000	2394	3603	2446	0034803	0000	15335												
	160	OBS	0000	2394	36033	2446			15335		004				000	018	072				
		STD	0010	2402	3606	2446	0034870	0035	15338												
		STD	0020	2405	3608	2446	0034855	0070	15341												
	160	OBS	0020	2405	36081	2446			15341		006				000	019	054				
		STD	0030	2403	3608	2447	0034814	0105	15342												
	160	OBS	0046	2389	36089	2452			15342		005				000	019	072				

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	NO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STANC
											WATER CLP	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP		SAL		SIGMAT		SPVOLAN		DYNDPH		SVF		OXY		PO4		TOTP		NO2		NO3		SIO4		DOC
312302	57		31050N	079522W	116	19	12	16		1973	019	036		0140	3		20			3	X2	5	8				0060
								20	F02		010		150		144		06										
			STD	0000	2422		3603		2437		0035639		0000		15341												
	189		OBS	0000	2422		36028		2437						15341		004						000		017		
			STD	0010	2421		3603		2438		0035606		0036		15343												
			STD	0020	2420		3604		2439		0035573		0071		15344												
			STD	0030	2418		3604		2440		0035541		0107		15346												
			STD	0050	2416		3605		2441		0035475		0178		15348												
	189		OBS	0050	2416		36054		2441						15348		005						000		017		
			STD	0075	2320		3609		2472		0032599		0263		15329												
	189		OBS	0075	2320		36093		2472						15329		015						018		025		
			STD	0100	2204		3612		2508		0029329		0340		15305												
	189		OBS	0100	2204		36121		2509						15305		027						039		034		
	189		OBS	0115	1903		36143		2590						15227		046						087		046		
			STD	0125	1727		3638		2629		0017749		0399		15177												
	189		OBS	0140	1500		35866		2666						15107		085						128		094		

NODC STATION DATA

NODC CC	ID	SH	LAT	LON	MSQ	ID	MO	DY	HR	YEAR	ORIGINATOR CRND	STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
											WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTMSG		CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC					
312302	FZ	31028N	079476W	116	19	12	16	190	1973	019	035		0265	3	32		5	X2	5	8		0061
								32	F08	024	172	167	06									
			STD	0000	2579	3609	2394	0039739	0000	15379												
	190		OBS	0000	2579	36092	2394			15379		004			000	028	072					
			STD	0010	2579	3609	2394	0039790	0040	15380												
			STD	0020	2579	3609	2394	0039831	0080	15382												
			STD	0030	2578	3609	2394	0039881	0119	15384												
			STD	0050	2578	3609	2394	0039972	0199	15387												
	190		OBS	0050	2578	36095	2394			15387		004			000	033	090					
			STD	0075	2526	3619	2417	0037891	0297	15380												
			STD	0100	2475	3624	2437	0036053	0399	15373												
	190		OBS	T0100	2475	36238	2437			15373		000			005	008	156					
			STD	0125	2193	3625	2521	0028173	0469	15307												
			STD	0150	1933	3626	2592	0021459	0531	15242												
	190		OBS	T0150	1933	36265	2592			15242		036			081	037	056					
			STD	0200	1481	3592	2674	0013764	0619	15112												
	190		OBS	T0200	1481	35917	2674			15112		093			138	075	064					
			STD	0250	1212	3550	2697	0011610	0683	15026												
	190		OBS	T0250	1212	35496	2697			15026		103			219	113	072					

NODC STATION DATA

NODC CC ID	SH	LAT	LON	ASD ID	MO	DY	HR	YEAR	ORIGINATOR CRN	ORIGINATOR STAND	DEPTH BOT	DNP	WAVE OBS DR	HT	P	S	WC	CLOUD TY	AMT	NODC STAND
									WATER CLR	TP	WIND DR	F/S	BAR	AIR TEMP DRY	WET	V	NO OBS			
	CASTNBR	CTYPE	DEPTH	TEMP	SAL	SIGMAT	SPVOLAN	DYNDPH	SVF	OXY	PO4	TOTP	NO2	NO3	SIO4	DOC				
312332	FF	305355	0793604W	116	09	12	16	225	1973	019	034		0550	3	32		7	X2	5	8		0062
								32	F08	024	161	156		10								
		STD	0000		3605																	
	225	OBS	0000		36033									005				000				112
		STD	0010		3610																	
		STD	0020		3611																	
		STD	0030		3611																	
	225	OBS	T0048	2576	36124	2358			15386					003				000		013		070
		STD	0050	2574	3613	2359	0039431		15386													
	225	OBS	T0072	2550	36221	2413			15385					004				000				056
		STD	0075	2547	3622	2414	0038158		15385													
	225	OBS	T0095	2527	36247	2422			15384					002				000		009		060
		STD	0100	2498	3633	2437	0036083		15379													
		STD	0125	2353	3662	2503	0029913		15352													
	225	OBS	T0143	2250	36731	2541			15330					024				023				064
		STD	0150	2208	3672	2552	0025339		15321													
	225	OBS	T0192	1972	36588	2606			15264					022				061		024		054
		STD	0200	1932	3656	2615	0019497		15254													
	225	OBS	T0238	1738	36347	2647			15202					053				081		057		032
		STD	0250	1673	3624	2655	0015725		15183													
	225	OBS	T0284	1499	35957	2673			15132					065				153		057		042
		STD	0300	1422	3584	2680	0013406		15108													
	225	OBS	T0327	1108	35365	2706			15009					145				230		205		042
		STD	0401	1033	3526	2712	0010464		14995													
		STD	0500	0808	3499	2727	0008991		14914													
	225	OBS	T0523	0779	34971	2730			14907					173				237		218		046

SURFACE DRIFTER DATA

Four drift bottles were released at each of the following stations: 1, 3, 5, 20, 18, 16, 25, 23, 21, 43, 64, 62, 60, 41, and 39.

To date no drift bottles have been returned.

Table 2. Chlorophyll *a* and C^{14} uptake with respect to depth.

Station	Depth (m)	Chlorophyll *a* (mg/m^3)	C^{14} uptake $mgC/m^3/day$
1	0	.620	292.4
	7	.797	68.9
4	0	.339	3.24
	9	.339	11.93
	16	.353	17.61
11	0	.398	33.14
	16	.326	28.22
	25	.384	1.88
	37	.487	17.28
	54	.184	13.71
14	0	.398	55.36
	9	.425	22.14
	15	.475	19.20
	21	.443	7.06
	26	.378	2.58
17	0	.301	114.09
	9	.290	40.68
	16	.288	22.68
20	0	2.09	659.81
	2	2.016	893.91
21	0	1.09	39.51
	3	.826	240.89
	7	.974	156.44
24	0	.266	56.44
	8	.324	46.42
	13	.266	16.14
27	0	.723	34.54
	9	.796	38.09
	15	.761	53.90
	21	.761	30.62
	30	.693	9.38
30	0	.203	13.31
	17	.193	6.71
	29	.194	7.29
	41	.218	3.42
	59	.310	10.56

*The chlorophyll and carbon-^{14} productivity data are only considered accurate to 2 significant figures, at best, even though more are reported.

Table 2. (continued)

Station	Depth (m)	Chlorophyll *a* (mg/m^3)	C^{14} uptake $mgC/m^3/day$
30	0	.247	38.22
	17	.213	22.97
	29	.236	29.62
	37	.237	12.38
	54	.214	31.66
37	0	.306	42.50
	10	.354	46.69
	17	.442	0
	24	.354	8.33
	35	.413	18.62
40	0	.944	157.78
	8	.826	80.13
	13	.915	12.84
43	0	1.68	209.94
	3	1.83	398.90
	7	2.01	352.19
47	0	.826	17.51
	8	.885	43.34
	13	1.121	36.79
50	0	.369	119.41
	10	.378	22.39
	17	.438	16.26
	24	.390	8.00
	35	.420	25.99
54	0	.151	127.83
	16	.129	35.01
	25	.109	7.12
	37	.119	24.63
	54	.100	26.9
55	0	.133	50.65
	16	.122	14.83
	25	.144	7.67
	37	.317	8.55
	54	.094	13.13
59	0	.519	29.80
	10	.401	52.48
	16	.472	43.05
	24	.460	15.17
	35	.401	7.22

Table 2. (continued)

Station	Depth (m)	Chlorophyll *a* (mg/m^3)	C^{14} uptake $mgC/m^3/day$
61	0	.476	150.48
	9	1.02	103.36
	16	.812	96.74
	27	.770	54.81
	32	1.062	9.69
64	0	2.27	380.65
	3	2.124	811.94
	7	1.888	320.14

Table 3. Surface chlorophyll *a*, depth integrated chlorophyll *a* and C^{14} values.

Station	Surface Chlorophyll mg/m^3	Depth Integrated Chlorophyll *a* mg/m^2	Depth Integrated C^{14} $mgC/m^2/day$
1	.620	5.0	1264.5
2	.508		
3	.612		
4	.339	5.5	171.7
5	.451		
6	.448		
7	.314		
11	.398	19.9	1004.7
12	.333		
13	.277		
14	.398	11.2	575.6
15	.601		
16	.602		
17	.301	4.7	918.2
18	.265		
19	.324		
20	2.09	4.1	1553.7
21	1.09	6.5	1215.3
22	.702		
23	.277		
24	.266	3.8	567.8
25	.223		
26	.546		
27	.723	22.6	1036.4
28	.496		
29	.609		
30	.203	12.9	444.2
31	.238		
32	.247	12.3	1378.0
35	.101		
36	.295		
37	.306	13.1	786.7
38	.301		
39	.594		
40	.944	11.4	1184.1
41	.414		
42	.737		
43	1.68	12.9	2415.4
45	1.563		
46	1.534		
47	.826	11.9	443.7
48	.260		
49	.558		
50	.369	13.9	1116.1
51	.252		
52	.119		
53	.234		
54	.151	6.5	2120.8
55	.133	9.5	906.7

Table 3. (continued)

Station	Surface Chlorophyll mg/m^3	Depth Integrated Chlorophyll *a* mg/m^2	Depth Integrated C^{14} $mgC/m^2/day$
56	.101		
57	.104		
58	.306		
59	.519	15.7	1056.8
60	.590		
61	.476	26.4	2837.4
62	.806		
63	.549		
64	2.27	14.6	4052.7

Table 4. Particulate Organic Carbon (PCN) and Nitrogen (PN)

Station	Depth (m)	POC µgC/L	PN µgN/L	C:N (atomic)
1	0	218	30	9:1
1	0	-	24	11:1
2	0	146	27	6:1
14	0	88	9	12:1
16	0	134	19	8:1
18	0	128	22	6:1
20	0	424	50	10:1
20	0	484	-	11:1
21	0	214	20	12:1
24	0	103	9	14:1
28	0	91	14	8:1
31	0	54	8	8:1
36	0	111	-	-
40	0	93	-	-
42	0	182	23	9:1
43	0	562	37	17:1
42-46	0	259	27	11:1
43-44	0	202	-	-
46	0	286	29	11:1
48	0	97	-	-
49	0	128	-	-
51	0	106	-	-
56	0	49	-	-
60	0	38	18	2:1
62	0	150	19	9:1
63	0	287	35	10:1
64	0	93	-	-

ZOOPLANKTON

Sampling Method: Plankton samples were collected with a half meter No. 20 mesh net towed obliquely through the entire water column. Although an impeller flow meter was mounted on the net, these measurements are only qualitative.

Data: The following data are the five dominant genera at each station in order of abundance. The average cephalothorax length and concentration/m^3 are also given.

Table 5. Generic composition (five dominant genera at each station listed in order of abundance), respective size ranges (cephalothorax length in mm) and concentrations.

Station	Genus	Size (mm)	Animal Concentration (copepods/m^3)
1	*Oncaea* sp.	.31	48.51
	Corycella sp.	.68	6.57
	Oithona sp.	.43	4.65
	Centropages sp.	1.30	.61
	Temora sp.	.78	.32
	Labidocera aestiva	1.50	.21
	Eucalanus sp.	1.89	.11
	Total Concentration:		60.98
21	*Eucalanus attenuatus*	1.81	.88
	Centropages typicus	1.42	.18
	Labidocera aestiva	1.52	.06
	Candicia curta	1.68	.02
	Total Concentration:		1.14
44	*Corycella* sp.	.42	4.21
	Calanus sp.	.74	3.20
	Centropages sp.	.91	1.21
	Eucalanus sp.	.81	.08
	Oithona sp.	.64	.07
	Total Concentration:		8.77
7	*Oithona* sp.	.66	6.15
	Calanus sp.	.75	3.91
	Centropages typicus	1.11	1.04
	Temora turbinata	.61	.51
	Total Concentration:		11.61
27	*Calanus* sp.	1.10	2.39
	Corycaeus sp.	.38	.81
	Oithona sp.	.66	.12
	Temora turbinata	.72	.08
	Calocalanus pavo	.49	.03
	Total Concentration:		3.43

Station	Genus	Size (mm)	Animal Concentration (copepods/m^3)
30	*Oithona* sp.	.58	.97
	Corycaeus sp.	.81	.51
	Pleuromamma abdominalis	1.49	.13
	Oncaea sp.	.41	.04
	Corycaeus speciosus	1.33	.02
	Rhincalanus cornutus	2.50	.02
	Total Concentration:		1.69
50	*Calanus* sp.	.96	1.89
	Oncaea sp.	.59	.76
	Oithona sp.	.71	.75
	Centropages typicus	1.11	.16
	Corycella sp.	.68	.14
	Eucalanus sp.	1.72	.13
	Temora turbinata	.74	.09
	Calocalanus pavo	.40	.03
	Euchaeta sp.	2.10	.02
	Sapphirina sp.	.85	.01
	Total Concentration:		3.98
53	*Oithona* sp.	.65	.50
	Oncaea sp.	.59	.42
	Calanus sp.	1.40	.09
	Farranula gracilis	.62	.09
	Corycaeus sp.	.62	.07
	Paracalanus sp.	.85	.07
	Candacia sp.	1.81	.05
	Phaenna spinifera	1.59	.05
	Calocalanus pavo	.57	.03
	Pleuromamma abdominalis	1.89	.03
	Corycaeus speciosus	1.00	.01
	Pleuromamma piseki	1.37	.01
	Total Concentration:		1.42
64	*Labidocera aestiva*	1.78	1.11
	Corycaeus sp.	.55	.81
	Eucalanus attenuattus	1.61	.48
	Centropages furcatus	1.27	.12
	Temora turbinata	1.33	.02
	Total Concentration		2.54

Table 6. Mean grain size, sorting, skewness and kurtosis (Folk and Ward values) for sediments from E-19-73. All values in phi (ϕ) where applicable.

Station #	Mz	σ_I	Sk	Kg
2	1.16	1.17	-0.38	1.05
3	1.27	1.01	-0.72	1.05
5	1.41	0.73	-0.15	0.97
12	4.20	0.79	-0.16	1.55
20	0.64	1.19	-0.05	1.01
22	0.61	0.98	-0.04	1.20
24	1.06	0.69	-0.15	1.03
25	0.26	0.90	-0.18	1.10
27	1.09	0.64	-0.18	0.95
28	0.29	1.13	0.15	1.03
38	0.91	0.68	-0.03	0.87
39	1.77	0.72	-0.22	1.14
40	1.83	0.69	-0.38	1.05
43	1.97	0.72	-0.40	1.41
45	1.44	0.70	-0.11	0.99
47	1.76	0.58	-0.19	1.16
51	0.66	1.20	-0.38	0.90
58	1.95	0.57	-0.17	0.98
60	1.20	0.74	-0.14	1.03

Table 7. Organic material in Continental Shelf sediments E-19-73.

Station #	$\bar{x}$ (%)	$S\bar{x}$ 05	$\bar{x} \pm$ $S\bar{x}$ .05
2	0.57	0.18	0.75 – 0.39
3	0.47	0.06	0.53 – 0.41
5	0.56	0.03	0.59 – 0.53
12	2.78	0.65	3.43 – 2.13
20	0.55	0.04	0.59 – 0.51
22	0.29	0.07	0.36 – 0.22
24	0.33	0.07	0.40 – 0.26
25	0.45	0.07	0.52 – 0.38
27	0.23	0.06	0.29 – 0.17
28	0.75	0.21	0.96 – 0.54
38	0.34	0.04	0.38 – 0.30
39	0.32	0.08	0.40 – 0.24
40	0.45	0.03	0.47 – 0.42
43	0.25	0.04	0.29 -- 0.21
45	0.17	0.03	0.20 – 0.14
47	0.22	0.08	0.30 – 0.14
51	0.68	0.07	0.75 – 0.61
58	0.73	0.11	0.84 – 0.62
60	0.56	0.06	0.62 – 0.50

Table 8. Dissolved mercury data.

Station #	Mercury Concentrations (ng/l) December 1973
3	33
9	41
12	31
14	35
16	21
18	39
20	39
22	29
23	28
25	55
27	58
29	55
31	72
34	68
37	83
39	53
41	49
43	66
45	65
47	102
49	76
50	103
52	65
54	91
56	56
58	22
60	155
62	82
64	85
Average	60
Minimum	21
Maximum	155